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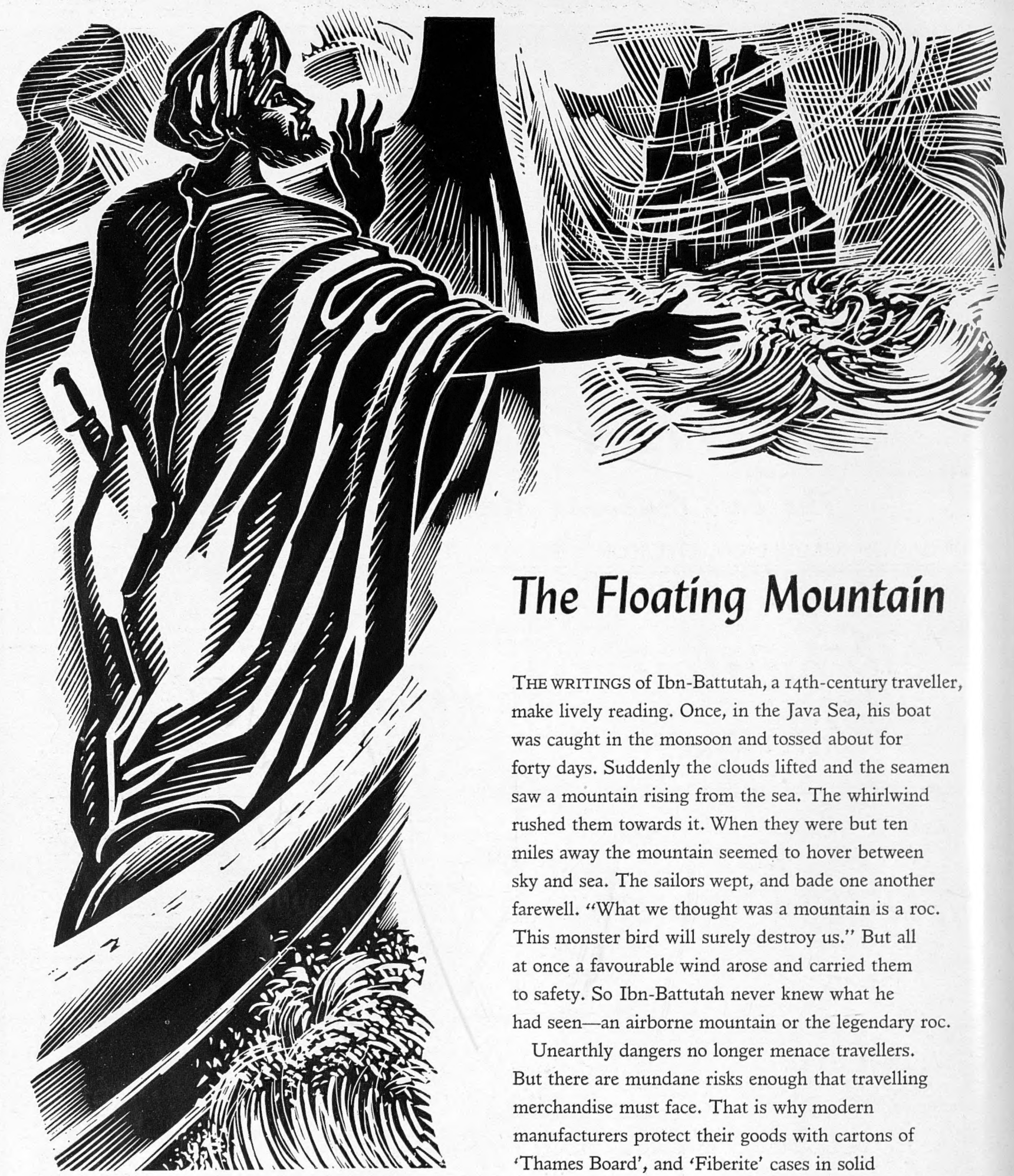

Wood engraving by John Farleigh

The Floating Mountain

THE WRITINGS of Ibn-Battutah, a 14th-century traveller, make lively reading. Once, in the Java Sea, his boat was caught in the monsoon and tossed about for forty days. Suddenly the clouds lifted and the seamen saw a mountain rising from the sea. The whirlwind rushed them towards it. When they were but ten miles away the mountain seemed to hover between sky and sea. The sailors wept, and bade one another farewell. "What we thought was a mountain is a roc. This monster bird will surely destroy us." But all at once a favourable wind arose and carried them to safety. So Ibn-Battutah never knew what he had seen—an airborne mountain or the legendary roc.

Unearthly dangers no longer menace travellers. But there are mundane risks enough that travelling merchandise must face. That is why modern manufacturers protect their goods with cartons of 'Thames Board', and 'Fiberite' cases in solid or in corrugated fibreboard.

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Volume CCXXXII No. 3018

The SPHERE, London, February 1, 1958

The SPHERE

with which is incorporated THE GRAPHIC

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HILLARY AT THE POLE—THE ARRIVAL OF THE FIRST MAN TO MAKE THE JOURNEY BY LAND SINCE CAPTAIN SCOTT : In this picture which recently reached London by air Sir Edmund (on left) stands with Major Mogensen, the scientific leader of the American expedition at its station at the South Pole. A fortnight after Hillary, Dr. Fuchs arrived there to complete the first half of his trans-Antarctic crossing. Early this week he was making good progress on his second stage, northwards to McMurdo Sound.

The great British Commonwealth enterprise in the Antarctic had entered a new stage by the beginning of this week. Dr. Vivian Fuchs, leading eleven others of the main party, had crossed over the Pole on his trans-Antarctic journey and was reported to have travelled 80 miles northwards in two days. His messages indicated that he was moving through a partial "white-out" with a 15- to 20-knot following wind, and that the going was "soft and restful" for his Sno-cats although fuel consumption was up. Meanwhile, Hillary had returned to his base at McMurdo Sound, having been twice to the Pole this season. The first time he went by land—the first to do so since Captain Scott in 1911-1912—and the second time by air to welcome Dr. Fuchs. From Scott Base the famous New Zealander was expected soon to fly up to Depot 700, from which he plans to travel back with Dr. Fuchs. Both the Commonwealth parties are demonstrating the worth of tracked vehicles in Antarctic exploration. These give them greater speed than Scott, who had to man-handle his sledges. (Historic pictures from Scott's expedition of 1911-1912 are on page 177.)

Postage—Inland, 4d.; Canada 1½d.; Elsewhere Abroad, 4½d.

A SHIP IN DISTRESS IN ABERDEEN HARBOUR: Entering harbour at Aberdeen, in Scotland, to land a sick member of her crew this trawler, the *Luffness*, of Granton, Edinburgh, was swept on to a ledge of the north pier. The harbour pilot's cutter and the tug *Banny* succeeded in rescuing the thirteen members of the crew in spite of the danger from heavy seas. The sick man, William Docherty, a trimmer from Granton, was taken to hospital with suspected appendicitis.

A London Newsletter

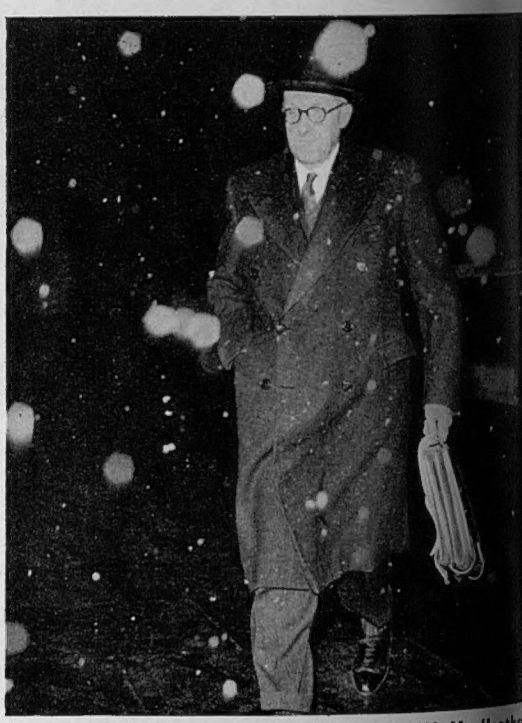
195-198, STRAND, W.C.2.

No Leak in the City Tank.—At long last a mighty sensation, assumed by many to be a scandal, has ended in the acquittal of all the "suspects." Unanimously and vigorously three lawyers, acceptable to all, have pronounced that there was no leakage on the Bank Rate decision by any of the persons supplied with a preview of the Government's intentions and no private profit made as a result of disclosure of that information. The old saw "There 's no smoke without fire" on this occasion cost a vast amount of time and money better spent on other matters, and perhaps the Government might have rested on the Lord Chancellor's opinion that an inquiry was not justified. But at that time the smoke would have continued to circulate with damage to the reputation of the City and some politicians. It remains to regret that the three wise men could not establish a working definition of "leakage." Leakage in one way or another is always with us and to pin it down is a very difficult matter. What constitutes leakage of confidential matters? A nod is as good as a spoken word or a typed "hand-out" as often as not. A doctor coming from a V.I.P.'s sick-bed can confirm the worst without a spoken word in answer to a question. The "verdict of you all" is often clear to the criminal in the dock before the foreman speaks. The "man in the know" pressed to give confidential information is in a dilemma. If his face is a solemn mask, if he jokingly responds with a comic or fantastic "leakage," he stands liable to be accused of passing confidential bad news or good news. In anything like a "Budget secret," the probabilities of fiscal changes are not numberless. There may or may not be 6d. on or off income tax. Everyone knows from published matter in the preceding months that it 's a nice run thing, a fifty-fifty chance. Often enough, we can accurately forecast the next Budget's main proposals without back-stair snooping. And some people make money in the race ring without corrupting the stable boys. If anyone had asked me what I expected to be among the new measures promised to fight inflation and the drift from sterling, I should have said a stiff rise in the Bank Rate. Then, I suppose (most unjustly, since high or low finance is not my cup of tea), I should have been hailed as a prophet or haled before the judge. There will always be people, like the solitary witness trounced by the Commission, who from vanity will pretend to a knowledge of confidential information and so generate smoke.

Parliament and a General Election.—The wishful thinkers have once more revived the prospect of a General Election this year. The debate on the Government's economic policy (in brief, on the resignations) suggests to many of us that nothing could be further from the Government's plans and interests than to go to the country again before it must. Everything points to the necessity of using all the time it possesses, first to prove that the reformed Cabinet has *not* weakened in its determination to fight inflation by unpopular measures (even in the sphere of health services), and nothing could be more unlikely than a General Election before the Budget of Mr. Amory has been carried to finality. And then? Even Lord Hailsham must reckon that a General Election in May would give the Tories but a slender chance of success. It is not only necessary for the Government to show real results from its economic policy; it is no less essential, if it is to return again to power, to show some small progress towards a lessening of tension in the cold war and at least a hope of reaching agreement for a partial disarmament. All the available lifetime of this Govern ment will be all too short to produce these proofs progress, and without them it is difficult to imagine th the electorate will not decide, as so often it has do when elections occur in doldrum times, to let the oth side have a try in the optimistic belief that it might produc a new idea and that things could hardly grow worse. Thi kind of optimism may not be realistic, but votes are no always cast after cool and impartial calculations of wh will best serve the country as a whole. In short, I shoul judge that wishful thinking never made a more ineg prophecy than that of a General Election in 1958. For th rest, with the light shining in the tower again, I watch closely the manners of Members to see whether they hav taken note of the recent castigations they have receive on the score of debasing the institution of Parliament t the level of a third-rate school debating society.

A Step Forward?—In his reply to Mr. Bulganin' first letter, Mr. Macmillan virtually announced the natur of his reply to the second letter and Mr. Eisenhower ha done the same. Summit talks by all means, but only afte the Foreign Ministers have thrashed out a possibly work able agenda. "Let us talk when we have something t talk about." For the rest, his letter "signed" on behal of Britain unilaterally that non-aggression pact for whic Bulganin asked, to reinforce the non-aggression pac already long-since in existence. Mr. Macmillan's letter then, clearly acknowledges that our people and th peoples of other Western countries are at last at the en of their patience and insist on a new effort to break th multilateral suspicions which for ever freeze the cold war It may, of course, be that Russia will stand on summi talks with no previous preparation of an agenda. If sh does so, we shall be *in statu quo*. If she accepts the com promise, to that extent the iron curtain of mutual suspicio will show a chink. In so far as the patience of Britons alone is shown to be exhausted, the Premier's realisatio of that is further revealed in the fact that he has not too the line with America. His pledge of a new and bilateral non-aggression pact is one instance. His general agree ment that summit talks have again become an urgen necessity, running counter to Mr. Dulles' opinion, i another instance. Moreover, he has undertaken, without disparagement, to give serious consideration to the Polis proposal backed by the Kremlin, with only a hint tha the proposal would need much modification before could be fair to both sides. There is some advance her A little verbal courtesy has drifted in at last. If Russ accepts the steering committee compromise, that could taken as a first instalment of "deeds to accompany words I feel no doubt whatever that public opinion, in Britai certainly, and perhaps in Europe, has at long last made a impression and that the hungry sheep are beginning t compel their shepherds to find them something to chew o They demand the opening of the clamps.

Paying for Our Fun.—I am always interested in Inland Revenue annual statistics. British income an super tax-payers in 1956-57 provided the Exchequer wi £2,133,000,000. It is a handsome sum for our litt island to find from about 18,000,000 citizens. Anoth



THE CHANCELLOR HURRIES THROUGH THE SNOW: Mr. Heatho Amory leaves the Treasury, in Whitehall, to attend economic debate in the House of Commons last we During his speech he expressed his confidence in solv the country's economic problems if they were fa resolutely. He felt that restraint in wage dema would ultimately be in the interests of wage-earn Mr. Thorneycroft, the ex-Chancellor of the Exchequ spoke from the back benches. "Our basic problem," he said, "is that we should plan to spend less than are planning to spend. Unless we do so the pou sterling will continue to decline." He assured House that he would give his successor his full suppo

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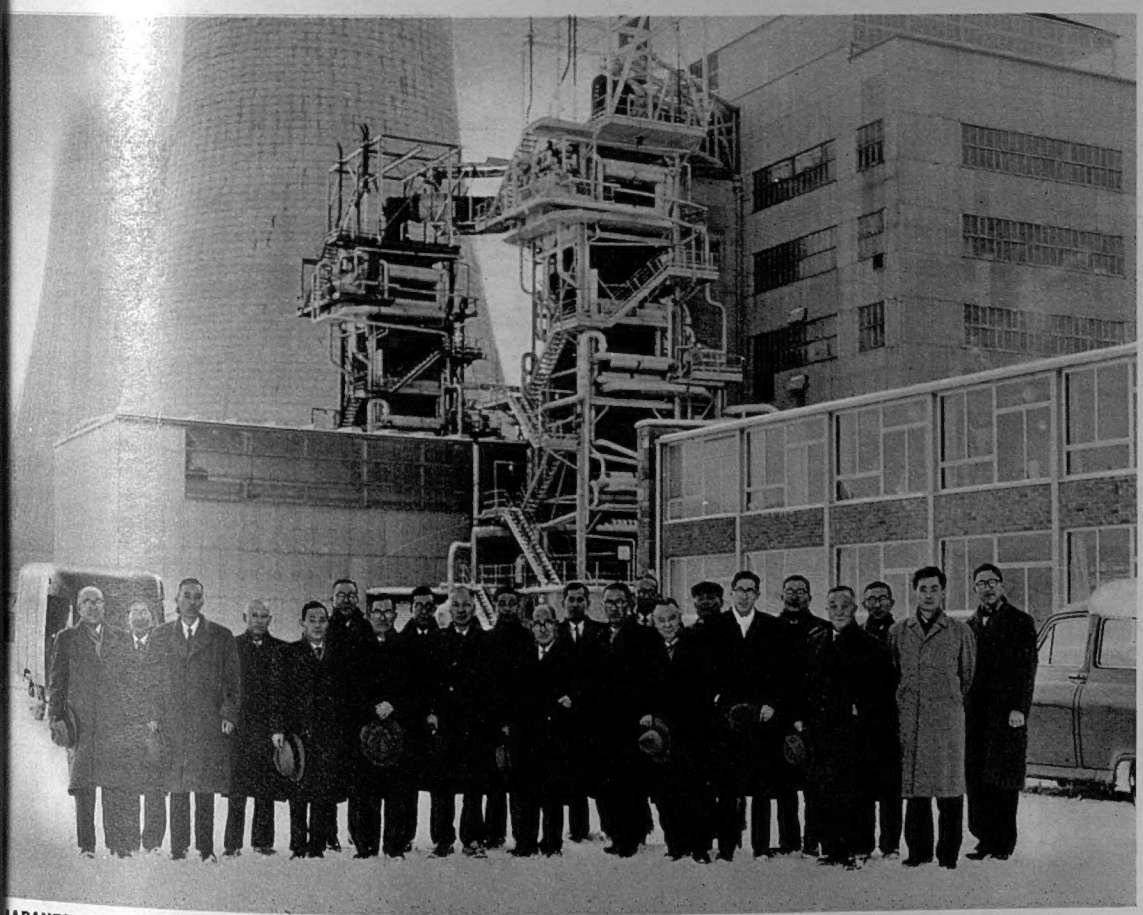
3,500,009 paid no taxes. Among these happy few, I wonder how many there were who, because their business transactions pass through no bank but are privately banked in greasy notes in their pockets, paid no taxes and what these wide boys might have added to the harvest of £2,133,000,000 if their transactions were available to scrutiny like yours and mine. The year's statistics revealed that "millionaires" are again on the increase. Fifty-eight people (against thirty-six in 1952) enjoyed a gross income of £100,000 a year, sharing an annual income of £8,500,000 gross. Six hundred people, after Mr. Bloodsucker had done his bit and his best, were left with £6,000 a year to spend, and less than 1,000,000 with £1,000 to £2,000 a year to spend. Mr. Bloodsucker has no reason to despise his efforts unless on two grounds: (1) his failure to net the self-banking wide-boys; (2) the shameful obscurity of his "book of words" which requires that even the humblest taxpayer must pay for the services of an expert to insure that he defrauds neither the State nor himself. Every recent Government should feel ashamed that it has not taken steps to remove this monstrous extra impost on the citizens.

Coal-Mining—A Co-Operative Effort at Discipline.—The public, especially in a cold snap, feels very bitterly about the price it must pay for coal and not seldom about the quality it receives. It is a rare comfort to hear of instances which suggest that the unions concerned do not always seem to adopt the principle of "heads we win, tails you lose." The North-West Division of the National Coal Board and the Mine-workers' Union are at one in their anxiety about the increase in absenteeism. In the Lancashire coalfield, absenteeism, not due to sickness or accident, has risen by another 7 per cent., and the Board and Union have on their own initiative devised a scheme to reduce voluntary absenteeism. A spokesman for the Union has gone so far as to say that a miner who refuses to do five days' full work a week will forfeit the protection of his Union, and the scheme envisages that after a warning and a period of test for amendment, down-grading or dismissal by the management will be accepted as justified by the men's watching committees in cases of continued absenteeism. A dismissed man's record will be available to possible employers in other areas. If the Lancashire scheme achieves results, it may well be adopted in other areas where absenteeism is rife. A 7 per cent. increase in absenteeism represents the loss per week in Lancashire coal output of 21,000 tons.

Privilege and Practicability.—The age of privilege is not dead. It has perhaps shifted its quarters. Those who work in the most dangerous and unpleasant jobs of national importance deserve to be privileged persons up to a point. It is another matter when privilege runs counter to national policy and national ability to pay. Take only the case of the Warwickshire miners. When nationalisation took place the old practice in force in pre-vesting days of giving these miners allowances of from 4 to 10 tons annually continued and still continues. North Warwickshire recently became a smoke-control area requiring its inhabitants to give up open fires in the interests of cleaner air. That does not suit those who pay little or nothing for their coal, and so it is that the authorities ca' canny with implementing the order for fear of upsetting the miners. The various claims for better pay and conditions now put forward on behalf of various grades in the mining labour force would, *pace* the Coal Board, tot up to £30,000,000 a year, adding another 3s. a ton to the price of coal. Some of those claims might be sympathetically considered when the condition of our national finances improve, if they ever do so. At the moment the public which must buy its fuel without discounts feels that the age of privilege were better dead and that the rate for the job can be better worried out if all classes of workers start from scratch. Those of us, incidentally, who pay for our coal with gold-dust prices, may alert ourselves on reading that in Middlesex last year one-quarter of all the sacks of coal weighed on the spot by inspectors in the article of delivery were short-weight. 1,800 sacks were deficient! That, of course, is nothing to do with the miners.

A LIFE GUARD'S WEDDING: Captain Christopher Philipson, of The Life Guards, and his bride, Miss Mary Macdonald-Buchanan, pass through the arch made by the swords of the Guard of Honour after their wedding at the Holy Trinity Church, Brompton, in London. The bride's father is Major R. Macdonald-Buchanan, who is the chairman of a large whisky-distilling company in Scotland, a racehorse owner and a former Senior Steward of the Jockey Club.



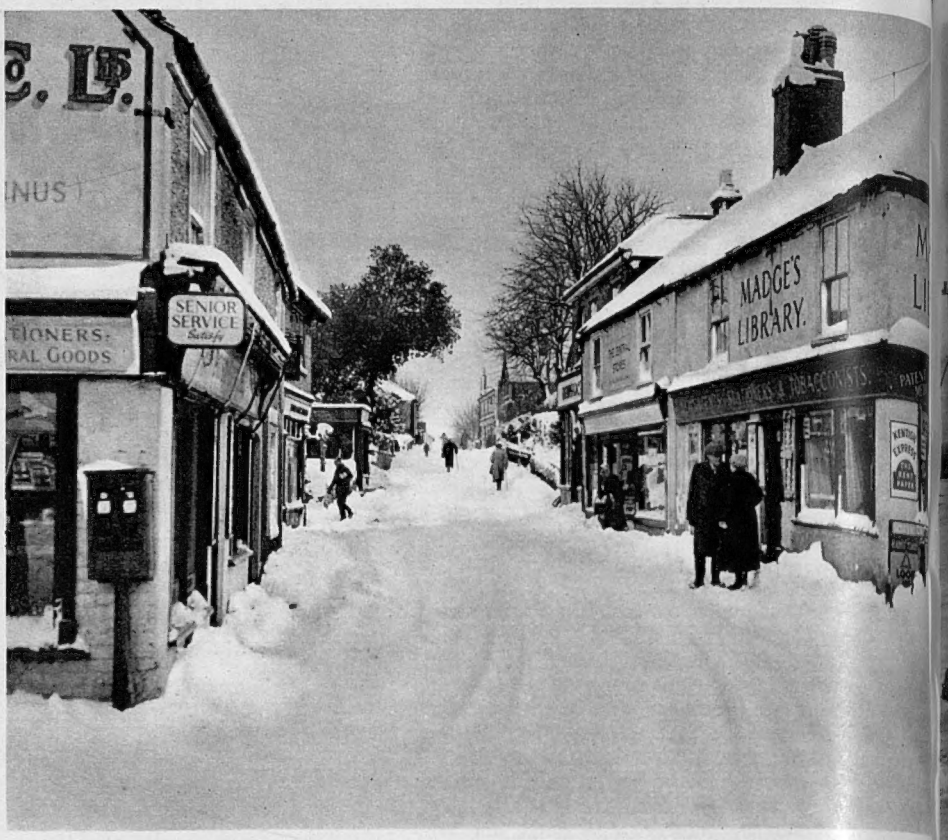
JAPANESE ATOMIC EXPERTS VISIT CALDER HALL: A group of Japanese engineers and scientists who are currently visiting Britain to see atomic energy electricity generating plant and equipment pose in front of Calder Hall, in Northumberland, which is the first full-scale nuclear power station in the world. One of the purposes of their visit is to find out if the Calder Hall type of atomic reactor can be made earthquake-proof before inviting tenders to build one in Japan.

Press Intrusions.—Once more a private citizen has, in a letter to *The Times*, called attention to the heartless intrusion on private tragedies that results from the demands of reportage by certain sections of the Press, especially in murder cases. He referred to the murder of a Dutch girl in Essex and he bitterly contrasted the courtesy and sympathy of the police and the immigration and customs officers with the heartless and ruthless intrusions of the reporters in their determination to get "stories" and "close-ups" of the friends and relatives in the first moments of their shock and grief. Can nothing be done, he asked, to stop this disgusting practice? Very little, I suppose. A mild expression of general disapproval by the Press Council, occasionally administered, has had no effect to date, and when one marvels that young men seeking to succeed in journalism can possess the "hearts of triple brass" needed to accept such assignments as a stage in their advancement, one must remember that the lure of publicity is widespread and may sometimes seem to justify their intrusions. There are still many who, stricken by domestic tragedy, are not unwilling to "talk" for an hour of fame; and that may account in part for the additional fact that Press intruders appear sometimes genuinely surprised when the victims of their intrusions rudely reject the chance of momentary "fame" offered them. Many of these reporters come to the assignment believing that they can offer a rare privilege. But the majority, I hope, carry out their bosses' orders with shame or distaste.

Eros.—Often Piccadilly has seemed to me a queer place to choose for a statue of the God of Love. But perhaps, since his name coined the adjective erotic, it was not so badly placed. Be that as it may, now that this pretty statue has long since become the target of drunken mobs of roughs and hooligans out for a spree, the time seems to have come for choosing another and less busy site, such as Kensington Gardens, which can be better defended. A majority of these senseless assaults on a work of art follow some sporting event in London, usually a football match. Football, no doubt, stands much higher in the hierarchy of Olympus than Eros, as sport is more important than art among the youth of our nation. Otherwise there might be two opinions about this quarrel on Olympus and on how to end the trouble by the removal of one. No tipsy hooligans mass together to deface the Nelson or York columns, Florence Nightingale or Cleopatra or Boadicea. They leave Washington, Charles I and Peabody alone. Clearly they collect where the booze is most plentiful, and if that be so, Eros should be moved and not be replaced by any substitute less utilitarian than a public convenience.

THE OLD STAGER

SNOW CHAOS: The camera looks down on the snowbound Aberdeen-Fraserburgh road and picks out an abandoned lorry half-buried in a snowdrift. In the foreground, the driver and his companion plough their way through the snow for assistance. *On right*—A car cautiously makes its way through a snowdrift along a road made treacherous by hard-packed snow and ice. This was the scene familiar all over England and Scotland last week when snow, hail and sleet showers swept the country, giving the worst cold spell of the winter so far. As usual, the snowfall was followed by road hazards. At the height of the falls, not one county in England, Scotland or Wales remained completely free from snow or ice. In Kent, Britain's worst-hit county, single-line traffic only was possible on some roads. In the North of Scotland traffic was brought almost to a standstill and many outlying villages were cut off throughout the blizzards.

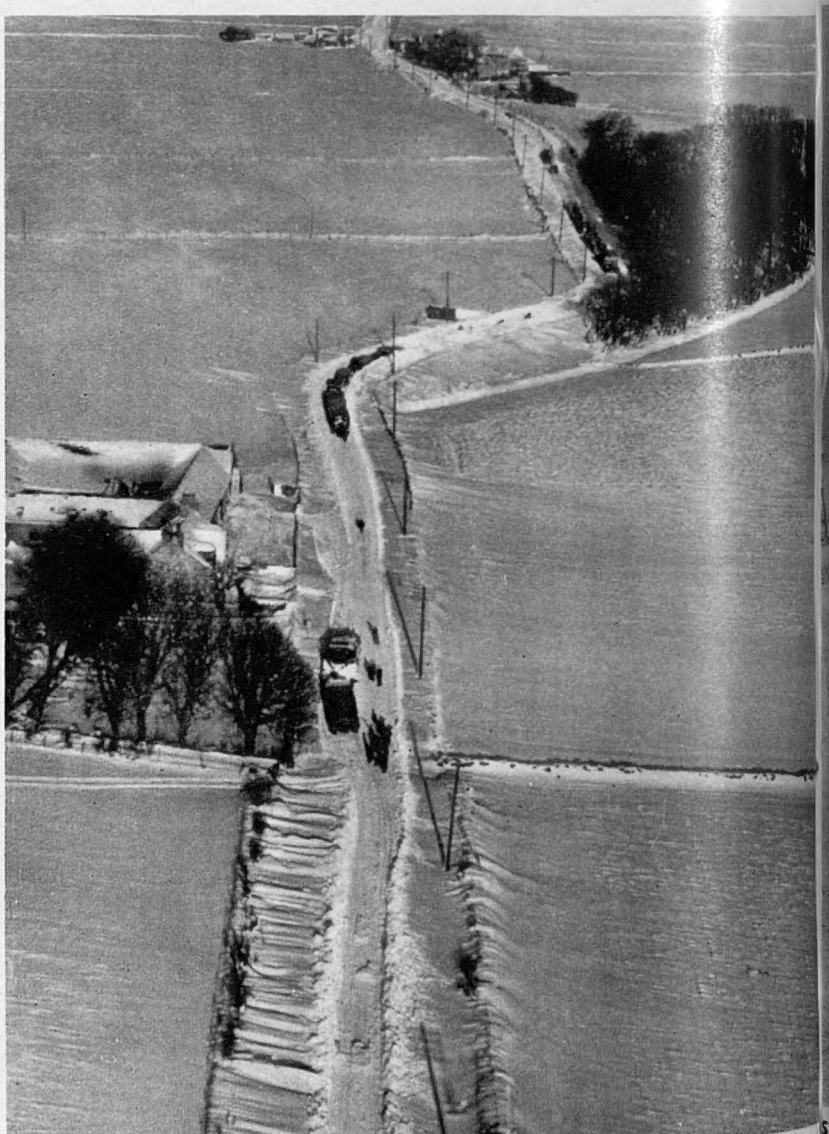


CHRISTMAS CARD SCENE: The scene at the village of St. Margaret's, near Dover, in Kent, is typical of that at the majority of hamlets after a snowfall. Kent was the most severely affected county in Britain as a result of the recent fall. Traffic was disrupted and towns were cut off.

BRITAIN UNDER SNOW

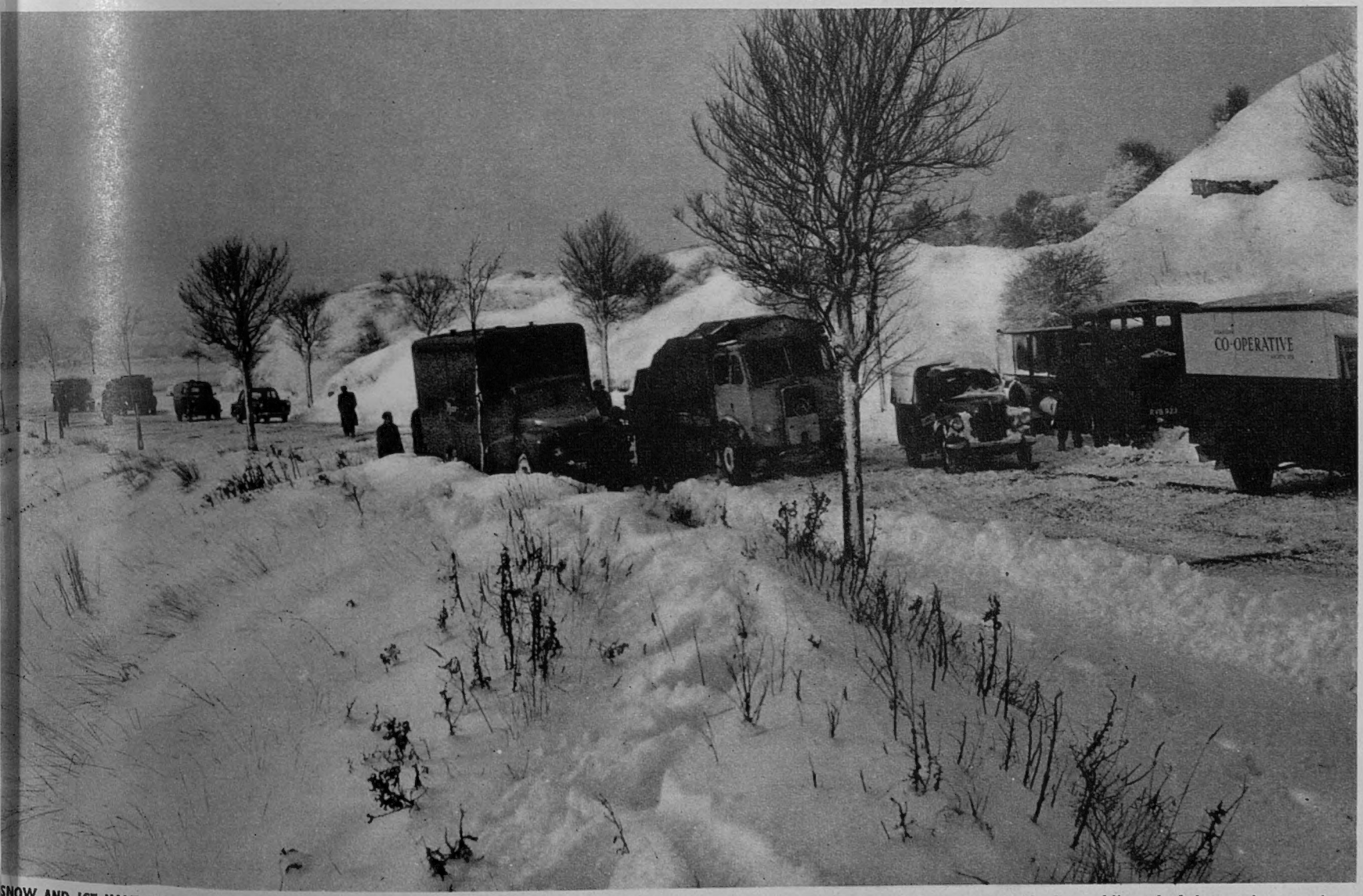
Pictures from England and Scotland During the Extensive Snowstorms

A STRANDED TRAIN: The Aberdeen-Fraserburgh train is halted by a snowdrift blocking the line near Brucklay. All but four of the forty passengers trekked across the drifts to reach a relief train. The others, all women, remained in their carriage overnight.



TRAFFIC CRAWL: A line of traffic plays follow-my-leader along the snowbound Aberdeen-Elton road, near Belnelvie. In the north-east, as elsewhere, heavy overnight snow and continuous falls during the day created conditions described by the A.A. as "appalling."

WINTRY CONDITIONS AT LONDON AIRPORT: The runways are covered with a blanket of snow. In the foreground, airliners of Aer Lingus and Sabena are being serviced, while on the right, passengers climb the steps into an aircraft of B.E.A. At Southampton fifteen passengers who should have been aboard the liner *Queen Elizabeth* when she sailed for New York were absent, having been delayed by snow and ice during their train journey from Glasgow to London and again while travelling from London to Southampton.

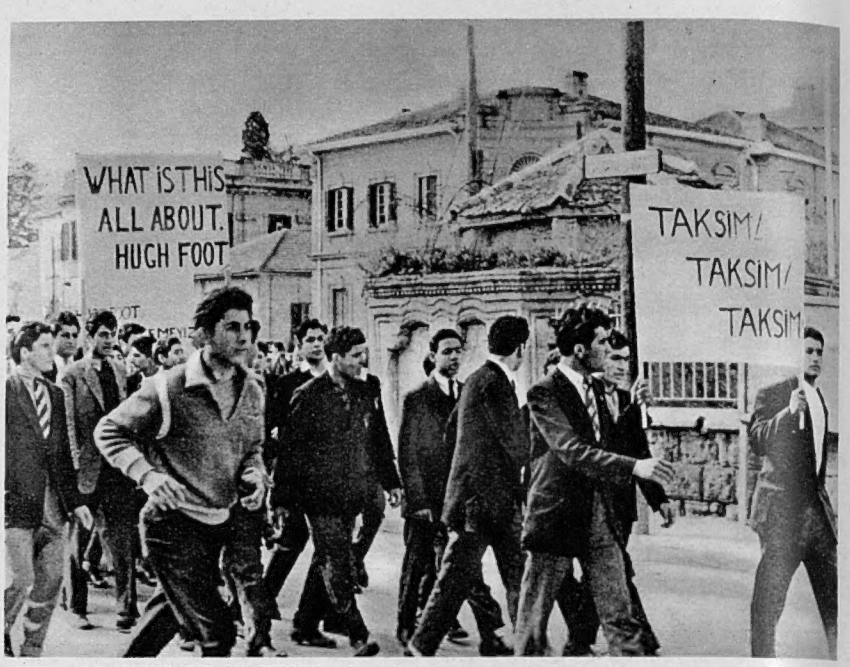


SNOW AND ICE HALT THE TRAFFIC IN KENT: Vehicles mount up behind one another on the Folkestone to Dover road, made hazardous by the heavy blizzard of the previous evening, which had swept across the whole of East Kent. Deep drifts made many roads impassable and road and rail services in the area were badly disrupted. About 130 snow-ploughs were brought into use by Kent County Council in an effort to clear the roads, and troops from camps in the vicinity were called out to assist in the arduous relief work.

THE NEWS IN PICTURES

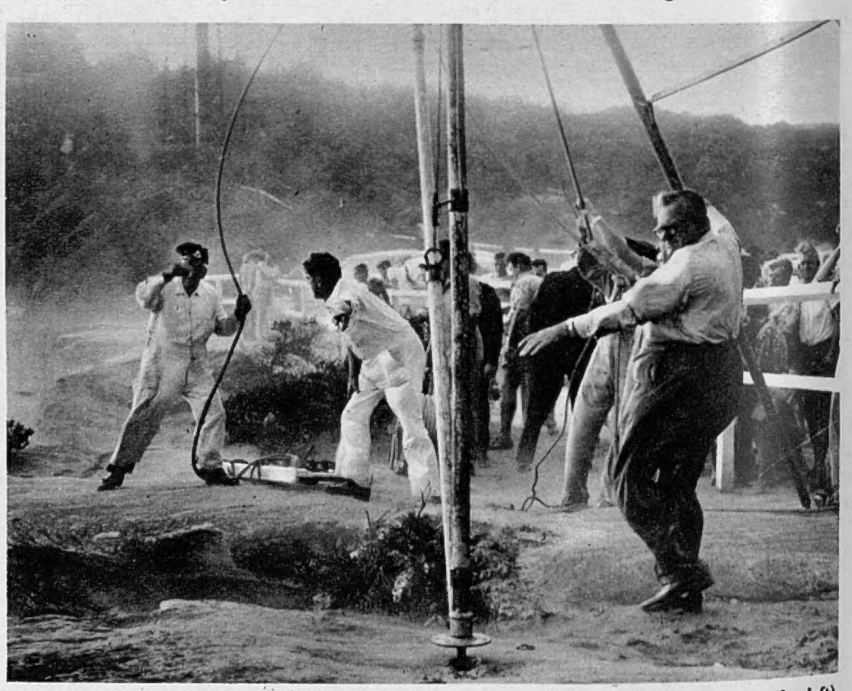
THE QUEEN MOTHER SETS OUT FOR NEW ZEALAND AND AUSTRALIA: The Queen waves goodbye to her mother while Princess Margaret stands at the bottom of the steps up to the airliner at London Airport last Tuesday. The Queen Mother was to fly in the B.O.A.C. DC-7C aircraft by way of Montreal and Honolulu to Fiji. There she was to transfer into a Britannia and arrive in New Zealand to-day (February 1).

THE RUINS OF SMITHFIELD: A fireman stands in the smouldering debris that was once Smithfield Poultry Market. Last week London firemen had their busiest days since the war. Four major fires, including the Smithfield blaze which claimed the lives of two firemen, occurred within three days. (More Smithfield pictures on page 176)



TURKS DEMONSTRATE IN CYPRUS: Carrying banners and shouting slogans in favour of partition and against Sir Hugh Foot, Turks parade through the streets of Limassol. The demonstration, in which 300 took part, ended in a riot and clashes with the police. Two days later more serious Turkish riots occurred in Nicosia.

TROOPS CALLED OUT IN LIMASSOL: Security forces form a barrier against the Turkish demonstration which had turned into a riot. At one time the Turks were stoning their compatriots in the police and it was reported that ten policemen and two demonstrators were slightly injured. This manifestation of Turkish feeling for partition occurred the day before Sir Hugh Foot, the Governor, left suddenly and unexpectedly by air on a visit to Ankara. He was understood to be going for consultations with Mr. Selwyn Lloyd before the latter had talks with the Turkish Foreign Minister, Mr. Zorlu, on possibilities of ending the Greek-Turkish deadlock over Cyprus. Mr. Lloyd had arrived in Ankara for the Council Meeting of the Bagdad Pact.



A DARING CLIFF RESCUE IN AUSTRALIA: Sergeant Harry Ware (holding rope on the left), of the Police Rescue Squad of Sydney, New South Wales, prepares to be let down the side of a steep cliff at Manly to bring up a boy who was injured and stranded 45 ft. down the face of the precipice. A violent gale was raging at the time and the wind was reaching a force of over 90 miles an hour—one of the strongest tempests ever recorded in the district. Against such hazards of the weather, Sergeant Ware descended and rescued the marooned youth, Leslie Arthur Schmarr, aged sixteen.

THE NEWS IN PICTURES

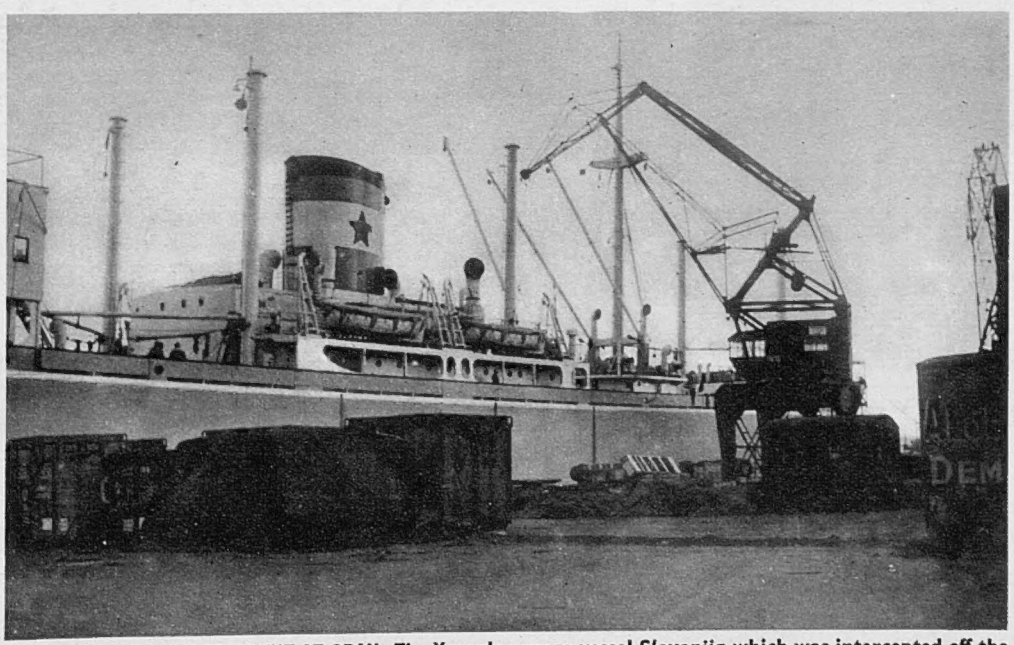
LEAVING HAMBURG FOR MONTE CARLO: The British team of Peter Harper(at wheel) and Peter Elbra leave Hamburg on their route from Oslo to the French Riviera, in the Monte Carlo Rally. Their car is a Sunbeam Rapier.

THE MONTE CARLO RALLY WINNERS FACE A DISPUTE: Shaking hands across the hood of their rear-engined Renault Dauphine are Guy Monraisse (left) and Jacques Feret, after being declared the winners of the 1958 Monte Carlo Rally. Peter Harper, who, with Peter Elbra, had driven his Sunbeam Rapier from Oslo without penalty on the first 1,850-mile section of the Rally, made an official protest when it was announced that he had been placed sixth. He believed that a mistake had been made in the final classification test and that the Sunbeam was placed in category two instead of category one, which would account for a 49-minute time error. The protest was not upheld, but on a recheck Harper was placed fifth. His was the highest-placed British car. The TR3 driven by the Dutch team of Maurice Gatsonides and Marcel Becquart came sixth. They were the only competitors to finish from The Hague. Of 302 cars that set out on the Monte Carlo Rally only thirty-eight managed to complete the final classification test. Icy conditions, coupled with thick snow blocking the routes in places, were responsible for many cars dropping out. Only one starter of the original eighty-five from Paris reached Monte Carlo.

BRITISH DRIVERS WAIT AT DOVER: Snow is piled high on each side of the roadway as British competitors in the Monte Carlo Rally wait to go aboard the ferry to France after completing the first leg of their journey. The weather conditions for this year's twenty-seventh Monte Carlo Rally were bad and a large proportion of the many competitors who came from several parts of Europe were unable to finish the hazardous course.

FRENCH WINNERS OF THE MONTE CARLO RALLY LADIES' CUP: The only women's team to complete the course to Monte Carlo was that of Mme. Madeline Blanchoud (left) and Mme. Renée Wagner, of France, who started from Lisbon in an Alfa Romeo.

ARMS SEIZED BY THE FRENCH NAVY: Sailors in the French naval barracks at Oran examine some of the small automatic weapons which were among the vast quantities of arms and ammunition found by the French Navy on board the Yugoslav freighter *Slovenija*. The vessel was intercepted off the coast of Algeria and the French authorities stated they believed the arms to be on their way to Algerian rebels. In spite of protests from the Yugoslav Government France has refused to return the arms. It is claimed in Belgrade that the vessel was 40 miles out at sea when it was intercepted and "forcibly" escorted into the harbour at Oran. Unofficial French reports deny this and say that the captured ship was within the three-mile territorial limit.

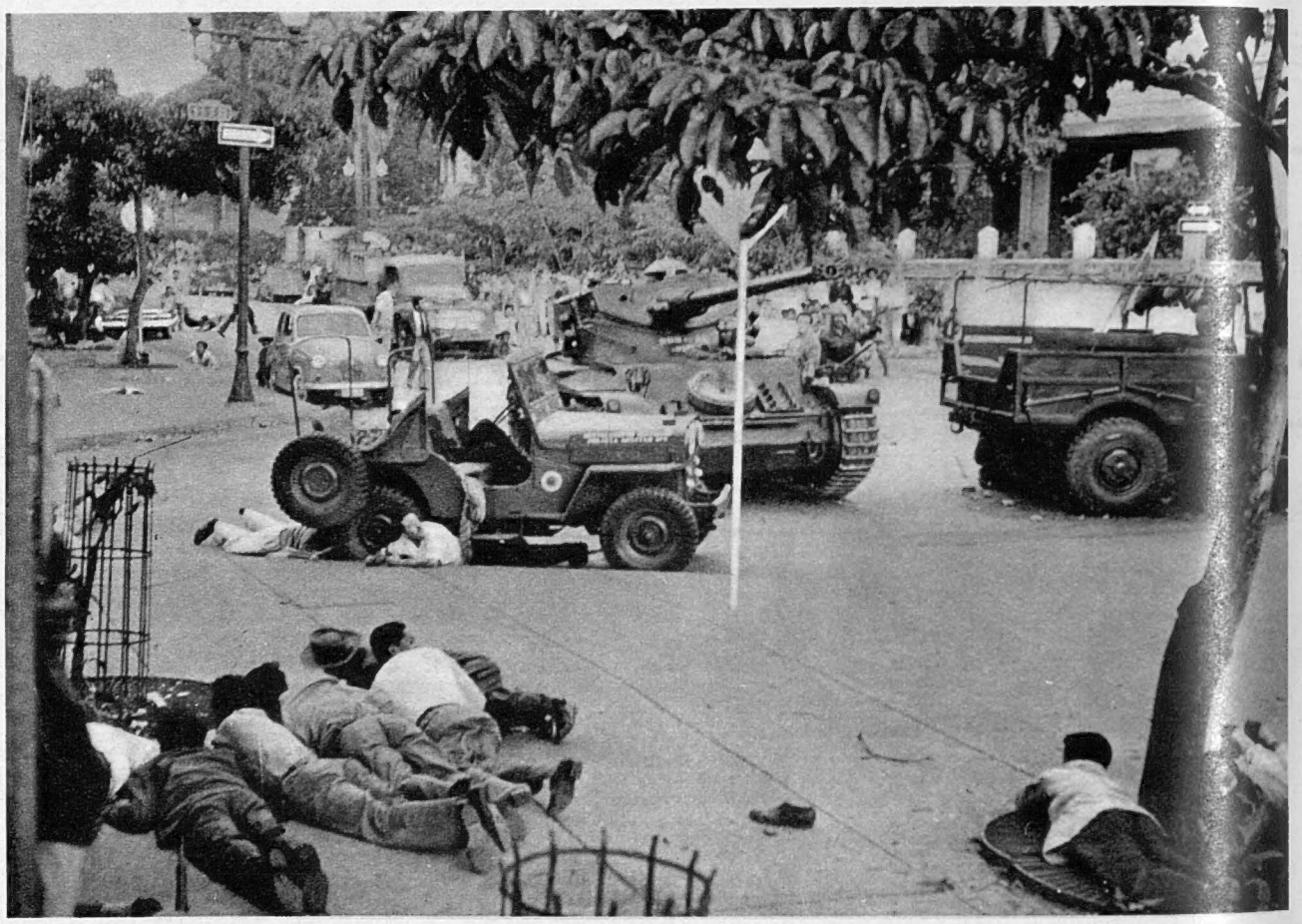


UNLOADING AN ARMS SHIPMENT AT ORAN: The Yugoslav cargo vessel *Slovenija* which was intercepted off the coast of Algeria by a French destroyer and a frigate and escorted to Oran, unloads her cargo of arms. The French authorities allege that they were for the Algerian rebels, but this has been denied by the Yugoslav Government. After the arms had been seized the *Slovenija* was allowed to go on her way.

THE NEWS IN PICTURES

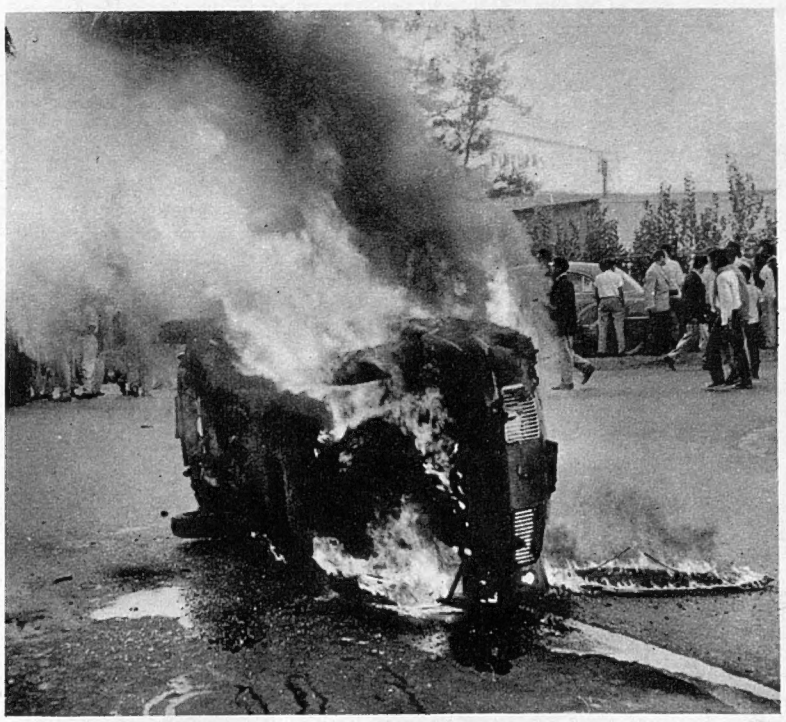
RULERS OF VENEZUELA—YESTERDAY AND TO-DAY: In this picture, taken six months ago in Caracas, the then President of Venezuela, Marcos Jiménez (right), is seen presenting a sword to Rear-Admiral Larrazabal. Last week, after a period of violence and riots, President Jiménez was deposed by Rear-Admiral Larrazabal and fled the country. *On right*—Rear-Admiral Larrazabal, having assumed leadership of the new Government, broadcasts to the people of Venezuela. His junta of soldiers and civilians has reportedly promised free elections and other liberties.

Throughout last month the situation in Venezuela became increasingly violent. There were repeated reports of attempts to overthrow the Jiménez Government and of riots and bloodshed in the streets of Caracas. On the surface the issue might appear to be one of popular feeling against the dictatorship of President Jiménez and at one time a virtual civil war had broken out between the masses of civilians and the Secret Police, regarded as the most hated symbol of the authoritarian regime. But, as always in Venezuelan politics, behind the scenes was the army. It was the military who put Jiménez into power in 1948 as virtual ruler—he did not take over the Presidency until 1952. It was the army last week who finally decided to dispense with him. The deposed President fled to Dominica as Rear-Admiral Larrazabal headed a new junta. For the time being at any rate, it seemed that the new leader would rule with a Government of military and civilians.

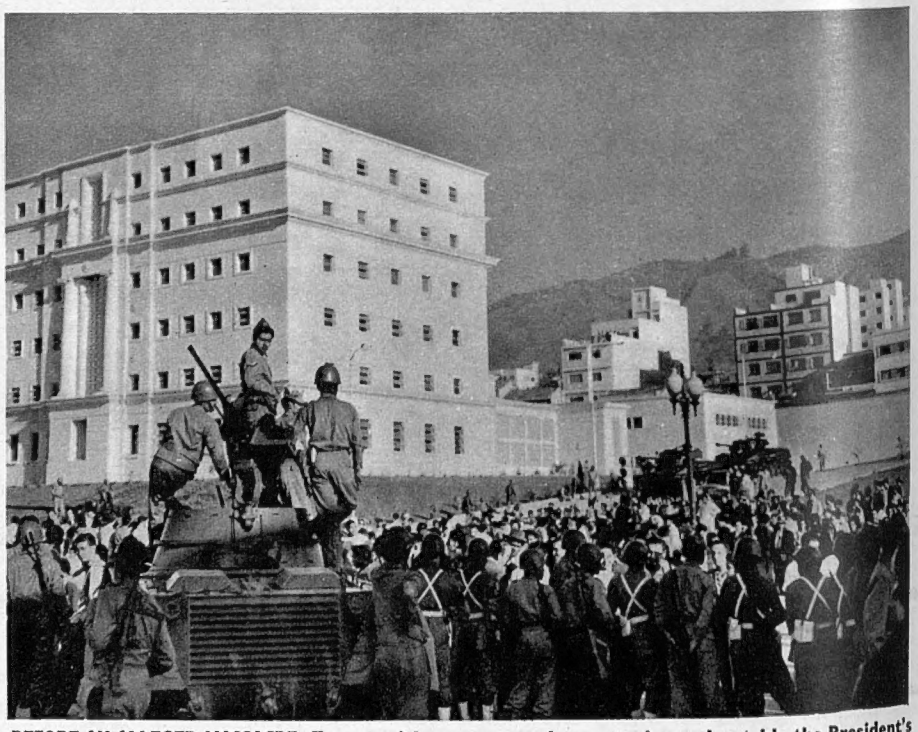


On right—

BATTLE WITH THE SECRET POLICE: Civilians lie on the ground and shelter by deserted military vehicles from the fire directed at them from the nearby Secret Police headquarters. A fierce battle developed and eventually the Secret Police were driven from their building by the infuriated crowd.



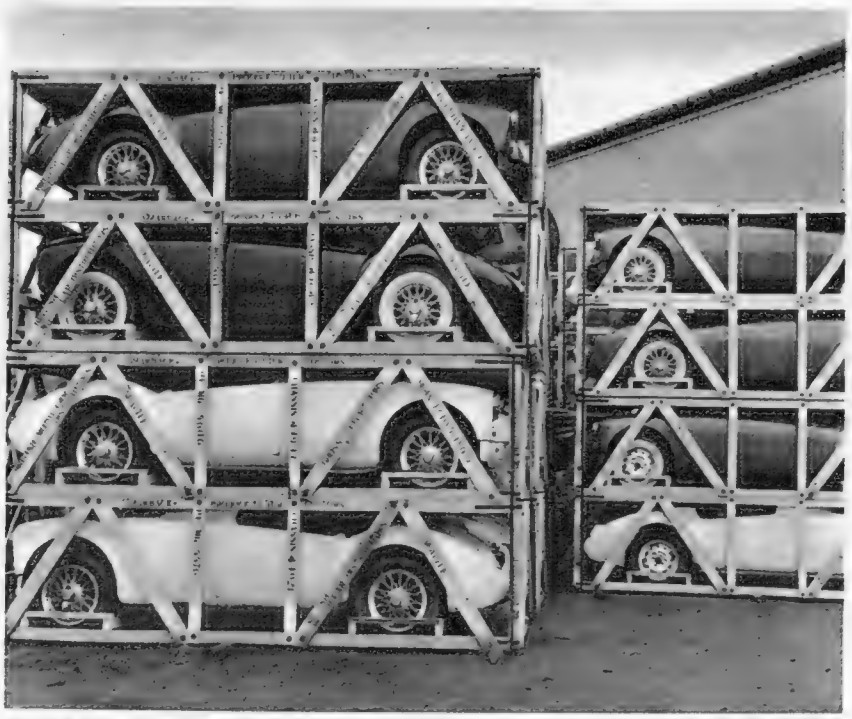
FLAMES IN THE STREETS OF CARACAS: An overturned car blazes during the siege of the headquarters of the Secret Police, who were regarded by the citizens of the capital of Venezuela as the most hated symbol of Jiménez dictatorship.



BEFORE AN ALLEGED MASSACRE: Troops with an armoured car stand guard outside the President's residence in the last days of the Jiménez Government. In left background is the Defence Ministry. It was reported that the troops opened fire and 100 demonstrators were killed.

THE NEWS IN PICTURES

BRITISH CARS FOR NORTH AMERICA : Long lines of cars of different types which have been manufactured in Britain stand on a dock at Dagenham, in Essex, for shipment to Los Angeles, San Francisco and Vancouver. An increasing number of British cars is being imported by these North American ports and it is understood that last month they earned the sum of 4,000,000 dollars (about £1,400,000) for Britain.



DOLLAR-EARNING CRATES : Sports cars are crated for shipment from Dagenham to North America. The consignment on the left is for Seattle and that on the right for Portland. This method of four-deep crating is being increasingly used to make the fullest use of cargo-space in the ships sailing to the North American ports from Dagenham as British car exports to the United States and Canada become larger.

THE NEW DIRECTOR OF BRITAIN'S ATOMIC ENERGY RESEARCH ESTABLISHMENT: Dr. B. F. J. Schonland, Alberto Deputy Director at Harwell, succeeds Sir John Cockcroft as Director. This was one of the changes announced last week in the higher organisation of the United Kingdom Atomic Energy Authority to relieve full-time members from executive duties as directors of groups. (The Harwell Zeta reactor is described on pp. 193-195.)

A LONDON EYESORE TO BE REMOVED: This hideous black corrugated iron structure which overlooks the Thames Embankment from the Temple Lawns is shortly to be demolished. It was put up during the last war by the Admiralty to house a gunnery school. Since then it has been used to store books from the bombed Inner Temple Library, now being rebuilt.

A FAMOUS BATTLESHIP MAKES HER LAST VOYAGE : H.M.S. *King George V* enters the breakers' yard at Dalmuir, on Clydebank. The "K.G.V." was launched in 1939 and had a distinguished career in the war. All four ships of her class are now being scrapped. Britain has one battleship, *Vanguard*, still in reserve commission.

AN "EMPRESS" IS TRANSFERRED : The Canadian Pacific liner *Empress of Scotland* lies in Belfast Harbour. The 23,000-ton passenger vessel has recently been purchased by the Hamburg-Atlantic Shipping Line, of Hamburg. The former flagship of the C.P. fleet is to be overhauled and modernised by her new owners.

ALPINE PANORAMA : In majestic solitude the peaks of the Bernina range, near St. Moritz, stretch away into the distance. In the foreground is Piz Bernina, the summit of which is 13,28[illegible] ft.

ONE OF THE MOST FAMOUS WINTER SPORTS RESORTS IN THE WORLD Piz Nair, which rises to over 10,000 ft. Here are many ski run *On left*—Another "bird's-eye view" of St. Moritz, looking we of last month most Swiss resorts were enjoying excellent sno

On right—
THE RUNS OF ST. MORITZ: Curving down the right of the picture is the Cresta Run, perhaps the most famed winter sports course in the world. The finish is in the centre foreground. To the left is the Bob Run, also coming to its finish. Last week Nino Bibbia, the former Italian Olympic champion, broke the record for the Cresta from Junction with a time of 44·3 secs. for the 1,300-yard course. This was ·3 secs. improvement on the previous record held by D. W. Connor.

St. Moritz, in Switzerland, lies below the among the best-known being the Corviglia. along the Engadine Valley. By the middle conditions, giving fine sport of all kinds.

SWISS PEAKS AND SLOPES

Scenes for the Mountaineer and Winter Sportsman
Around the Famous Resort of St. Moritz, in Switzerland

It is getting on for a hundred years ago since winter sports first began to be organised as an attraction for tourists. Switzerland is generally regarded as having been their birthplace and many Britons were among the pioneers in this now ever-increasingly popular form of recreation. St. Moritz was an early winter sports resort and its reputation has never ceased to grow. It lies in the Upper Engadine Valley. With its modern renown for ski-ing and sleighing it should not be forgotten that long before the days of the Cresta and the Bob Run it was noted as a spa for its mineral springs. Some authorities believe that the waters were used as long ago as the Bronze Age.

To the south of St. Moritz lies the Bernina range of mountains, the highest point, Piz Bernina, being 13,295 ft. high. The numerous peaks present a magnificent panorama of solitude in the snow and at the right time of year they attract many mountaineers.

In winter it is St. Moritz and its immediate environs which draw the visitors. Inevitably, for the enjoyment of winter sports a sufficiency of snow is essential. This year those who went to St. Moritz, and other Swiss mountain resorts, at the most popular and populous time of the New Year were not so lucky as those who followed them in the mid-month "January Gap." This is the name given to the period between the New Year and February rushes. In the middle of last month snow conditions were reported to be excellent, providing splendid sport for skiers of all grades. St. Moritz had 40 ins. of snow, so did Zermatt, while Wengen had 27 ins.

This was also the time for some fine sport on the Cresta Run and the establishment of a new record for it. A fortnight ago Nino Bibbia, the Italian ace, competing in the Heaton Gold Boblet Cup, which he won for the sixth time, came within 0·1 sec. of equalling the record of 44·6 secs. held by D. W. Connor for the course of 1,300 yards from Junction. Four days later Bibbia was practising for the Curzon Cup and with a strong following wind he succeeded in beating Connor's time by 0·3 secs, setting up a new record from Junction of 44·3 secs.

THE SMITHFIELD FIRE

The Poultry Market is Destroyed by an Underground Blaze

Two firemen died fighting what has been described as the worst subterranean fire London has ever known, when the cellars of Smithfield Poultry Market blazed last week. The outbreak was discovered at 2 a.m. on Thursday morning. As the day progressed it spread throughout a labyrinth of cellars and tunnels over an area of 2½ acres. As flames began to break through the floor of the market, firemen abandoned attempts to drive the fire from one side of the Union Cold Storage Company's basement to the other and concentrated on keeping the blaze from getting a hold on the surface buildings.

Station Officer Jack Fourt-Wells and Fireman Richard Stocking lost their lives, suffocated in the smoke-filled underground passages. Nearly forty firemen were injured and eight were taken to hospital suffering from the effects of smoke. In spite of thousands of gallons of water being pumped into the cellars the fire spread to the central poultry market buildings. The following day the market was a roofless gutted shell, and the fire was still burning. Two of the four ornamental towers on each corner of the building had collapsed and paving stones had been flung into the air. Two more firemen were injured during the day.

ALL THROUGH THE NIGHT: Twenty hours after the outbreak of fire Charterhouse Street, in Smithfield Market, is filled with billowing smoke, as hoses snake across the street and fire appliances pump thousands of gallons of water into the inferno below street-level. *On left*—Firemen direct their hoses down a shaft. Due to excellent drainage in the cellars, flooding was ineffective in quenching the flames.

THE BIGGEST LONDON FIRE SINCE THE BLITZ: Fire appliances, tenders and ambulances cram Smithfield Market as firemen from many London stations fight the blaze in the Union Cold Storage Company basement. Two firemen lost their lives through suffocation.

DENSE SMOKE HAMPERS THE FIRE-FIGHTERS: Nearly forty firemen were injured through smoke affecting their lungs and eight were sent to hospital. It was impossible to remain below for more than ten minutes at a time even with breathing apparatus.

HISTORIC PICTURES FROM THE SOUTH POLE

POLAR EXPLORATION IN THE OLD STYLE: A sledge in Captain Scott's expedition of 1911-12 is pulled and manhandled through the treacherous Antarctic snow. This picture was taken by Scott himself on his journey to the Pole and was found on his body after his death. The comparison with the mechanised transport of to-day's Polar expeditions on land needs no stressing.

The splendid achievements of the British Commonwealth Expedition in reaching the South Pole from opposite sides of Antarctica inevitably recall earlier memories of epic exploration there. Nearly half a century ago, in the winter of 1911-1912, the Pole was conquered for the first time. A month separated the arrival of the two parties, the Norwegians under Amundsen on December 17, 1911, and the British under Scott on January 17, 1912. The younger generations who have been brought up to think of the Pole as a target accessible to aircraft and, now, to tracked vehicles, with radio keeping the world in touch with the progress of any expedition, may not find it easy to grasp the enormous hazards which those earlier heroes had to overcome as they disappeared into months of silence. The top picture on this page illustrates the difference between then and now. Scott and his men had to man-handle their sledges. Amundsen succeeded where Scott failed so gloriously because he was a superior organiser and also had the luck of the weather. It is certain that neither Fuchs nor Hillary nor the Americans nor the Russians nor any others now "opening up" Antarctica would deny those pioneers the gigantic debt in courage and knowledge which the modern world owes them.

JANUARY 17, 1912—THE DAY OF THE GREAT DISAPPOINTMENT AT THE SOUTH POLE: The tent with the Norwegian flag and the pennant from the *Fram*, Amundsen's ship, flying above it tell Captain Scott (extreme left) that he has been beaten in the race to the Pole by the expedition under the great Norwegian explorer. Petty Officer Evans is on the right and in the background are Lieutenant Oates (left) and Dr. Wilson. The fifth member of the British party was Lieutenant Bowers, who took the picture.

SAVING LIFE AT SEA

A Demonstration of Rafts and Sea-Survival Suits

Making a splash in Portsmouth Harbour last week were naval airmen acting as "guinea-pigs" for testing new methods of saving life at sea. As the six men tossed and struggled in the icy water various life-saving devices were thrown to them. Six firms had agreed to take part in the tests and submitted their newly-designed equipment for the most stringent trials under very realistic conditions. Representatives of the Admiralty, the Merchant Navy and the Ministry of Transport were there to observe the tests.

Among the gear used by the men in the water was a prototype of a new sea-survival suit being developed by the Admiralty at Portsmouth. Made of polythene, the suit balloons up around the wearer when he is immersed and produces an appearance which recalls that of the pre-war "Michelin man." Other suits incorporate inflatable collars. Survival suits are necessary to keep a man alive in the sea while he is waiting for the inflation of a life-raft by means of the hydrostatic release unit. When a sinking vessel reaches a certain depth water pressure reacts on a special instrument, which then releases and inflates a life-raft. A mock-up section of a ship was used in the test and carefully lowered into the water to the necessary depth. Trials to find the best kind of equipment for survival in good and bad weather conditions in the sea have been going on at the Portsmouth Dockyard since 1948.

TESTING LIFE-SAVING EQUIPMENT: In the chilly waters of Portsmouth Harbour half a dozen naval airmen act as guinea-pigs for the trial of new life-saving equipment for use in ships at sea. A mock-up section of a ship is being lowered into the water. Attached to it is a hydrostatic release device which is worked by water pressure. When it passes below water-level it automatically releases a life-raft which then inflates. Meanwhile, the men float in survival suits designed to prevent exposure.

On right—

INFLATABLE LIFE-RAFTS SURFACING: They have been released by the hydrostatic release unit attached to the mock-up section of the side of a ship. In a few minutes they will inflate and the men in the water will be able to climb aboard.

A NEW POLYTHENE SURVIVAL SUIT: The plastic envelope has almost completely hidden its "occupant" in this prototype sea-survival suit demonstrated in the tests at Portsmouth. It is designed to be worn over all clothing.

STRUGGLING IN ICY SEAS: One man has reached the life-raft, which is floating uninflated on the surface of the sea. The Admiralty, the Merchant Navy and the Ministry of Transport sent representatives to observe the tests and life-saving units were demonstrated by six different firms.

ABANDON SHIP: A mishap occurs during the test when a naval airman accidentally punctured one end of the life-raft with his knife, with the result that it rapidly began to deflate. The crew are suddenly thrown back into the very cold waters from which they have only just been "rescued."

On left—

WAITING TO COME ABOARD: Slowly the large raft, which can carry several men, begins to take shape and the team of naval airmen selected to take part in the trials swims towards it. They are all wearing the standard sea-survival suit, which has been designed to protect them from exposure.

AN INCONSTANT IRIS

The Mystery of "Iris Stylosa" and its Seasons of Flowering

By BRIAN VESEY-FITZGERALD

TWENTY years ago, when we came to this house and started making this garden (which, as every gardener will appreciate, is not yet finished), we begged a few plants of *Iris stylosa* from the garden of the family place outside Winchester. (Let me hasten to assure the critical that I am fully aware that *Iris stylosa* ought to be called *Iris unguiculuris*, since that is the older botanical name for it. But I was brought up to call it *stylosa*, and the names of childhood die hard: the name remains with me, as it does, I believe, with everyone of my generation.) There they grew along the south wall of the house, and there they flowered profusely from early in November until well after Christmas. We wanted them so ardently to do the same for us in the garden of the house which, after many years of short tenancies in different parts of Britain, was to be our permanent home.

I love flowers—their forms, their colours, their scents—and I have some academic knowledge of them. I know something of the families to which they belong and I have little difficulty in remembering their Latin names. But I must admit that I know much more about (and have a much greater interest in) the insects which inhabit gardens than I do about the plants on which they feed. It will immediately be apparent, therefore, that I am not a practical gardener. This is just as well, because my wife is. She is never happier than when bent double over some plot of earth. The garden is her kingdom. I am encouraged to enter it, but I am not allowed to work in it—unless, of course, there is some heavy manual job which must be done urgently.

I do not object to this. Indeed, I welcome it. For I submit that no garden is large enough to support two practical gardeners, members of the same family, without friction: and ours is a small garden. Furthermore, I have never known an enthusiastic and practical gardener who has not, sooner or later, suffered from the "screws" in some form or another. This is a fate which, owing to my wife's great enthusiasm, I have so far avoided. Far from objecting, I am grateful. I enjoy sitting in a deck-chair, viewing her handiwork. Real gardeners hardly ever have the time to sit in deck-chairs in their own gardens.

We took the greatest possible care over the planting of our *Iris stylosa*. Not because it is a rare or valuable plant—ours is the common variety with lavender flowers, which is often described as the Algerian iris—but because we were so very anxious that it should produce blooms in mid-winter for our delight. In any case, there is no need to take care, in the accepted sense, over the planting of *Iris stylosa*. It is not what could be called a fussy plant. It does not require a rich soil or a luxuriant root-run. It does not demand careful manuring or chemical stimulants of any sort. If you give it these things, then you will be rewarded by a tremendous growth of shining dark green leaves—and no flowers at all.

A *stylosa* requires a poor, shallow (but well-drained) soil and sufficient sun to give it a good baking in the summer. This is why the ideal position is at the base of a wall facing south. Such a position should get all the sun there is, and the depth of the soil is restricted by the foundations of the house, which should also provide sufficient drainage.

The soil at Otterbourne, where our iris came from, is gravel, and there they grew on the top of a hill, hard against a south wall: about as well-drained and sunny a site as could be found anywhere. Here, the soil is clay: a thick, clogging red clay, which in winter holds all the water and clings to one's boots in thick rubbery lumps, and in summer dries as hard as cement and then cracks so that deep ravines scar the surface. It is not the sort of soil that *stylosa* welcomes. But we have a south wall, and at its base the soil is less glutinous than elsewhere in the garden. We made it even less so by adding some rubble. If it did not approach the Otterbourne site, it was at least passable. There was nothing to cause grievous offence to a *stylosa*.

They were planted and we sat back and waited. We waited six years for a bloom. And then the first one came in April. In those six years we tried everything recommended in the books. We cut the leaves to half their length in early summer, because we read somewhere that this helps to ripen the rhizomes. The cut edges of the leaves browned and they looked ugly. It made no difference whatever to the flowering. We got a bloom or two in April, nothing more.

We cleared the debris from the clumps in winter: we waged incessant and ruthless war on the slugs and snails. Year after year, we got a bloom or two in April; nothing more. So great an authority as the late W. R. Dykes said that *stylosa* required a hot July and August to flower in December. We had one or two really hot spells in these months in those years. They made no difference. We got one or two blooms in April; nothing more.

My wife became convinced that we must have begged the wrong kind of *stylosa*, that we had got, by mistake, a late-flowering kind. This would have been possible, for there were two or three varieties in the garden at Otterbourne. So convinced were we that we had in error obtained a late-flowering variety that we began to experiment with other winter-flowering irises—*alata*, *histriodes*, *Danfordiae*, *histrio* and *reticulata*—and to concentrate on the hellebores. The hellebores have served us magnificently, flowering year after year even in the coldest and wettest winters. There can be no doubt whatever that they relish our thick red clay. I do not recall that *alata* ever flowered, and it has long since disappeared. I do not recall that *histrio* ever appeared. We received great encouragement from *Danfordiae*, for every bulb did all that could have been expected of it in its first winter. But they never flowered again.

It was very much the same with *histriodes*, although these did display slightly more stamina and we did have one bloom (rather late) in the second winter. The *reticulatas*, on the other hand, did well enough: only they put off doing it until the spring. We came to the conclusion that, except for the hellebores, winter gardening was, so far as flowers were concerned, a waste of time and money on our unresponsive soil.

And then on January 15, 1948, eleven years after it was planted, we had one bloom of *Iris stylosa*. It was the only bloom we had that year, and it was approximately three months early. But our interest in *stylosa* as a winter-flowering iris was revived. We were no longer convinced that we had a late-flowering variety.

In the following winter, on December 18, 1948, we picked one bloom and another one on the following day. There were no more until January 3, 1949, when we picked one bloom. But there were four on January 4 and five on January 5. Then no more until January 14, but from then until February 13 there were one or two every day. Our hearts were filled with joy, and hope for the future.

But in the following winter (1949-50) we did not have a single bloom. Indeed, we did not get another for two years: not until February 18, 1951, when there was just one flower, the only flower of that winter. We decided that the early flowering must have been a freak and that, if the plants flowered again, there would be a return to the April pattern. But, on December 29, 1951, there was a single bloom and occasional blooms from then until February 20, 1952. There was not another until exactly a year later (February 20, 1953), after which there was quite a flood until March 7. The next was picked on January 21, 1954, and in that winter there were only three all told. Then two more years of rest, for there were no more until January 18, 1956, and only four all told in that winter. One might have been forgiven for thinking that the plants were spent. After all they had been in long enough.

On November 1, 1957 (our earliest date by far) we picked two blooms, and from then until the time of writing never a day has passed without two or three blooms. On some days there have been six or more, the record being sixteen in one day. There is as yet no sign of any falling off.

This prolific flowering certainly had nothing to do with a hot July and August! We have not cut down the leaves, and we have not been more than usually severe on the slugs. *Iris stylosa* is well known as an inconstant plant in its flowering, but this is surely taking inconstancy to its limit. I can think of no explanation for it, and I should be very glad to hear from any other gardeners who have had a similar experience, particularly from any who have solved the mystery. It does, however, prove one thing about *Iris stylosa* and that is that the person who grows them needs a considerable fund of patience. We have now come to the conclusion that our *stylosa* has only just established itself.

THE START OF A FRESH DRIVE: Carrying the "bag" from a previous drive, a party of guns and beaters sets out to shoot more foxes in the Maplescombe Valley, near Farningham, in Kent. Landowners and farmers are combining in this area to put down the foxes which have become increasingly bold in recent weeks. The district, which is some twenty miles from London on the Maidstone road, is not hunted by hounds.

A FOX SHOOT IN KENT

On left—

PLANNING THE EXTERMINATION OF FOXES: Instructions are given by one of the guns to some youthful beaters regarding the correct line for a shoot through a wood in the Maplescombe Valley. As elsewhere in England, drives are also being organised in this part of Kent against the growing numbers of rabbits.

JOURNALISTS INSPECT A HIDDEN GUN EMPLACEMENT: The steel dome covers a twin 75-mm. gun turret. When ready for firing it rises to 20 ins. above the ground. The steel crown weighs 30 tons and is nearly a foot thick. This strongpoint is one of the thousands which form part of the defences of the Maginot Line. Started in 1929 and finished in 1936, the Line was the pride of the French Government, and was considered virtually impregnable. Extending for 250 miles from Montmédy, near the Luxembourg frontier, to Belfort, on the Swiss border, the fortifications consisted mainly of huge underground barracks, with passages sometimes running as far back as 20 miles for supply lines to the fortresses. Shortly before the war a decision was taken to extend the Line to 600 miles, from the English Channel to Grenoble, but when Nazi forces occupied Belgium work had barely begun. The Germans invaded by out-flanking the Line from the north.

SECOND THOUGHTS ON THE MAGINOT LINE

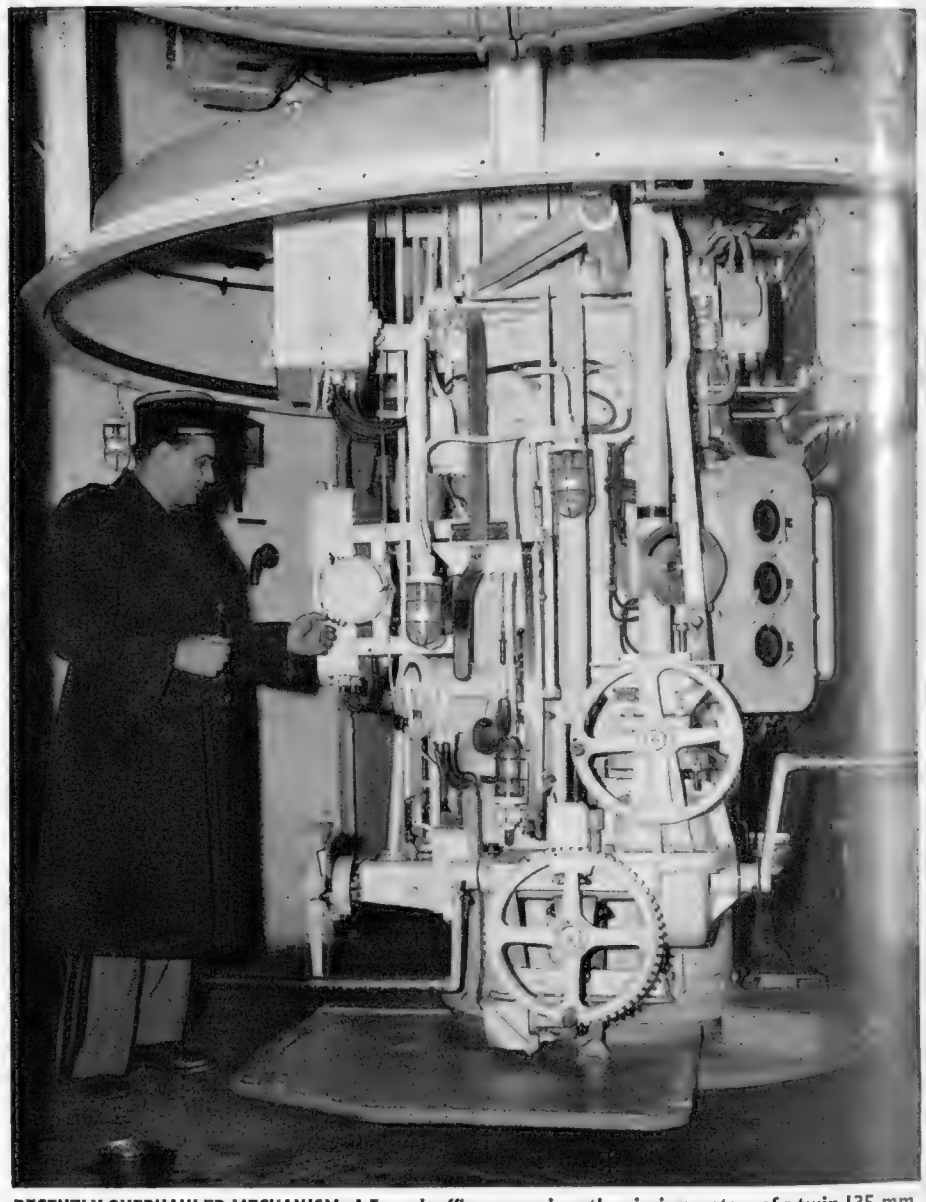
The White Elephant of the Second World War May Have Atomic-age Possibilities

THE SINISTER CONCRETE FORTIFICATIONS: This is a general view of a twin 135-mm. gun turret. Confirmation that France is again turning her attention to the Maginot Line came recently when a small section was visited by journalists. It is likely that the Line will be part of the pattern of defence from nuclear attack. Since most of it is underground and the surface protrusions heavily guarded by reinforced concrete and steel, it may well be the ideal means for fighting an atomic war.

(Further pictures on following pages)

AN ENTRANCE TO AN INSTALLATION: The concrete of this section of the Maginot Line may have aged in appearance but it has not lost its strength. Some 1,200 people can stay underground for over three months in this ten-mile section of the Line.

SEEPAGE HAS FORMED STALACTITES: A workman holds a torch aloft and illuminates the ceiling of this gallery which opened on to an ammunition dump. When the Germans left in 1944 they blew the dump up, and water has seeped through the damaged concrete ceiling, forming stalactites similar to those in limestone caves.



RECENTLY OVERHAULED MECHANISM: A French officer examines the aiming system of a twin 135-mm. gun turret. The mechanism enables the 200-ton steel turret to be moved with considerable ease. It has only recently been revealed that the Maginot Line has been considered suitable as an atomic fortification, and that sections of it have been overhauled in readiness.

SECOND THOUGHTS ON THE MAGINOT LINE

IN 1929, under the direction of the French War Minister, André Maginot, work began on a line of underground fortifications along the frontier of Germany and France, which were to take his name. By 1936 the Maginot Line extended 250 miles, from Montmédy in the north to Belfort in the south. On the surface it appeared to consist of barbed-wire entanglements, anti-tank obstacles and gun emplacements, but below ground it was an elaborate system of barracks, hospitals, supply depots, ammunition dumps, underground railways and the vital air-conditioning plants which allowed thousands of men to remain underground for months at a time. In places the deepest part of the Line was over 325 ft. below the ground, in others supply tunnels ran back 20 miles. Above, heavy guns were camouflaged and protected under thick layers of concrete and steel. They were controlled by panoramic telescopes as in a battleship.

In effect the Maginot Line was the ideal trench. Having suffered the rigours of trench warfare in the First World War, the French military leaders believed that the Maginot Line was the best means of fortification. When the war began, the "Maginot mentality" ignored the lessons of the German campaign in Poland and held solidly to the conviction that trench warfare was the way the war would be fought. The Line had not been completed along the Belgian frontier, and when the Nazi invasion of France began it was from the north. By pushing through at Montmédy the Germans were able to outflank the Line and take it from the rear in May 1940. Thus it proved to be one of the most costly and spectacular failures in history. With the Maginot Line's collapse French morale reached its lowest ebb and in June France surrendered.

Although the Maginot Line was quite unsuited for the "blitzkrieg" warfare of the Second World War, its future in a nuclear war is more hopeful. It was recently disclosed

THE GATES OF A FORTRESS: The supply entrance for this secret section of the Maginot Line is heavily guarded on each side. The extensive network which includes factories, arsenals and depots over a hundred feet below the ground is being kept in a constant state of preparedness.

A GUN IN FIRING POSITION: This twin 75-mm. gun turret is near the road from Luxembourg to Thionville. After firing it sinks back into the ground. All that is visible is the 30-ton steel crown. During the war the elaborate defence system of the Maginot Line proved to be totally useless, for the Germans overran France from the north through Belgium. The extent of the Maginot Line was from the Swiss border to the Luxembourg border. The war interrupted a proposal to build the Line right up to the English Channel.

On left—

AN ELECTRIC TRAIN: The tunnel system has an electric railway for transporting troops and ammunition through its many miles. Here is one of the locomotives, connected to a 600-volt overhead line in a similar way to a tramcar.

A HEAVILY-ARMOURED DOOR: This is a view looking out of the fort entry through the first armoured doorway. The Maginot Line is 250 miles long, and some of its tunnels go behind the Line for 20 miles, and act as supply routes.

AT THE BOTTOM OF A SHAFT: The lifts are reminiscent of those in a coal mine. Each is capable of lifting a load of 5 tons quickly to the surface from a depth of more than a hundred feet below ground. The Maginot Line may well have an important part to play in the event of the outbreak of a nuclear war, as it offers perfect protection from radiation.

that the French Government have secretly overhauled certain sections of the Line, which has remained in a semi-derelict state since the fateful days of 1940. It is believed that it will be possible to convert the Line comparatively easily to be a defence against an atomic attack, and perhaps for an offensive. A ten-mile section recently shown to journalists had been equipped with new installations and facilities to enable 1,200 men to stay underground for at least three months. An army could be kept below the earth, immune from radiation beneath the protective covering of reinforced concrete, steel and hundreds of feet of soil. It seems that the Maginot Line has at last a chance to prove its worth in a way in which its originator never contemplated.

OIL WAR IN THE SAHARA DESERT

As the First Oil Flows from the French Area, Algerian Rebels Attempt Sabotage

THE FIRST SHIPMENT OF OIL FROM THE FRENCH SAHARA ARRIVES SAFELY AT ITS DESTINATION: The four tank cars are being inspected on their arrival at Philippeville from Hassi Messaoud, north-west of Edjele, close to the Libyan border. Algerian Nationalists were reported to have made attempts to sabotage the shipment.

The arrival at Philippeville, on the Algerian coast, of the first convoy of Sahara oil was a cause of great satisfaction in the locality. The convoy, which came by rail, consisted of four tank cars carrying together some 55,000 gallons. This, it was felt, was visible proof of the mineral wealth of the Sahara and of France's determination to exploit it. Further evidence of French intention to develop Sahara oil at speed is seen in the construction of the pipeline to Philippeville.

However, the exploitation of the Sahara must remain a hazardous undertaking until the whole political problem of Algeria has been solved. As the first oil convoy reached Philippeville, there were reports of increased rebel activity, two especially heavy attacks being repelled by French troops. According to French sources the rebels had crossed from the Tunisian frontier. Attempts were also made to mine the railway along which the oil was carried. As long as the present tension continues, oil, carried by rail or by pipeline, will certainly be a target of rebel operations. The solution probably lies in the wider question of a North African settlement.

WORK IN PROGRESS ON A PIPELINE IN THE DESERT: It is seen under construction at Hassi Messaoud and, when completed, it will stretch across the Sahara to rail transportation depots. The French are taking precautions to protect the pipeline from sabotage.

PRECAUTIONS AGAINST ATTACKS BY ALGERIAN REBELS: Troops are on guard at a military camp in the Sahara, during the transportation of oil to the coast from wells at Hassi Messaoud. The first trainload of oil was protected by troops stationed at military outposts which are situated along the railway at intervals of six miles.

ANOTHER SECTION OF PIPELINE IN THE SAHARA: The pipeline being laid leads from the oil wells at Hassi Messaoud to Touggourt. From there, the oil is to be transported to the coast via a railway line. The first shipment to arrive at the Mediterranean coast oil depot consisted of four railway tank cars and carried 55,000 gallons.

PROGRESS IN REGIONS OF UNTAPPED WEALTH: *Above*—An excavator throws up a spray of sand as a trench is dug for a pipeline. *On right*—One of the helicopters used for patrolling the pipeline route takes off from beside a technician surveying the ground.

PEAK PERIODS FOR BRITAIN'S FUEL SUPPLIES

By "THE SPHERE" INDUSTRIAL CORRESPONDENT

IT is a fairly easy bet that within the last two weeks, or the next four, weather and the British consumer will have imposed their peak loads of this winter upon the fuel supply system of Britain. The greatest demand for electricity during any one half-hour of winter 1956-57 to date occurred shortly after seven in the evening of January 15; the largest amount of gas taken at any one time was probably during the morning of Sunday, January 19; and the heaviest tonnage of coal burned in Britain during any winter week was during that same week—4,954,000 tons. But a cold snap can come during any of these weeks; sometimes the peaks for electricity and gas, at least, come late in February.

The householder, turning on switch or gas tap or shovelling coal into his (we hope) modern open fire, does not spare much time for reflection upon these peak demands he is helping to impose, and there is no reason why he should. They are in the nature of the winter; and the businesses concerned are organised to deal with them. But few householders realise how much this "peakiness" of demand upon the fuel industries dominates the organisation, the investment, and even the technology of some of them—and how significant a margin it adds to the prices they pay for fuel and power.

The strain that this yearly peak demand imposes upon Britain's fuel industries—primarily the nationalised coal, electricity, and gas, since oil central-heating and paraffin stoves have only recently become a significant element in keeping Britain warm, and still represent a small fraction of the oil companies' business—depend essentially upon how easy the fuel concerned is to store. Broadly, coal can be stored fairly easily and cheaply; gas can be stored, but it takes large and expensive containers; and electricity cannot, in terms of large supplies, be stored at all.

The cushion of coal stocks, therefore, spreads the incidence of peak demand on the coal-mining industry fairly evenly over what miners call "the coal year"—from May 1 of any calendar year to April 30 of the next. During the first six months of that year, the mines are steadily raising more coal than is used at home or exported, building up "distributed stocks"—*i.e.*, those held by merchants and consumers, from the vast tonnages in hand at, say, a steelworks, to the few hundredweight in the householder's cellar. Hence the summer "concessionary prices" for solid fuel; the National Coal Board has to build up stocks, and would rather they were in customers' hands than piled or in wagons in mine yards or open-cast stocking grounds. This is partly a matter of financing these stocks; it is also a matter of getting them to where they may be wanted when the winter brings its cold snaps.

Coal on the ground—and at the moment the Coal Board happens to have about 8,500,000 tons of it—will not necessarily help if it is wanted suddenly a hundred miles away. By the beginning of November of any year the industry hopes to have built up the stocks distributed among consumers all round the country to a level where these could deal with any exceptional demand and can steadily eke out the supplies arriving during the ensuing "coal winter." From then on it is concerned to keep its own output—which is regularly somewhat less than the level of winter coal consumption—moving away steadily from the mines. For the conditions that can bring about peak demand in any winter week or fortnight, snow and ice, are also those that can break the "pipeline" of coal transport.

Britain's railway system was originally laid out for the movement of coal throughout the country, and moving coal is still about the biggest job the railways do. Every weekday of the year, some 60,000 wagons, carrying, say, 700,000 tons of coal, have to be moved from the sidings of Britain's 850-odd collieries, and as many empty wagons delivered. At any time, there are about 600,000 coal wagons on Britain's railway lines, and perhaps 1,500,000-2,000,000 tons of coal in transit in about 3,000 mineral trains. Any big dislocation of rail movement through snowfalls in the North and Midlands can freeze up even bigger tonnages, slow output at certain collieries that have little storage space except their wagons, and cause shortages—particularly of grades such as large coal—for consumers throughout the country. Coal stocks in consumers' stores are there to meet this; in some winters since the war they have not been sufficient.

At this time of the year, gasworks will have about four to five weeks' coal in stock—plus only a few hours gas, during most of the week. A gasholder to take 2,000,000 cub. ft. of gas, which represents about six hours supplies for the area served by a single medium-sized gasworks, takes about 1,200 tons of steel and may cost £175,000; cost soon makes the holding of really big gas stocks prohibitive. The biggest group of customers of the gas industry in most parts of the country is housewives, and the peak demand of the week comes every Sunday morning. So the gasworks generally fills up its storage capacity to its greatest extent just before the week-end, and then handles this peak demand by running its ordinary carbonising plant full out, by using gas from its holders, and by bringing in special peak load plant—usually made in a different way, by passing air and steam over heated coke and enriching this "water gas" with fuel oil.

Britain's power stations at present have about seven weeks' coal in hand; but they can store none of their own power. Like the gas industry, too, they are not in a position to refuse any customer who wants to buy; they must ordinarily supply as many kilowatts as the last customer cares to switch on. Nor do they make much use of specialised "peak load" plant; they supply the peak load by bringing in successive reserves of old and comparatively inefficient equipment, which is kept in being though used for comparatively few minutes of each day and even for comparatively few days of each year.

Unlike gas, the electricity supply industry has the advantage of a national grid system, by which loads placed in any area of the country which exceed the capacity available there can be supplied from capacity standing idle elsewhere. This has greatly reduced the amount of spare capacity that the industry needs, taken as a whole. Nevertheless, this supply of an unstorable commodity, electricity, places an onerous burden of capital investment upon the electricity industry, heavier than almost any other. For the amount of capacity that the industry needs to have installed is determined primarily by the last kilowatt of demand on the morning or evening peak of the coldest winter day; thus a considerable proportion of its expensive capital equipment must remain idle for most of the year.

In electricity, moreover, the daily load curve is an expensive one; during the night, demand drops to about 40 per cent. of the level of the morning and evening. This continuous "base load" is supplied by the industry's newest and most efficient plant, which can thus be worked almost continuously except for periods of maintenance—on average, 70 per cent. or more of the time. It needs to be, because of its high capital cost. Indeed, this "peakiness" of demand constitutes one of the problems that faces the electricity industry in introducing nuclear electricity stations into its power network; at present, these plants are economic to build only if they can be guaranteed full usage for about 70 per cent. of the time.

To the consumer, the reflection of these peak demands upon energy supplies that are to some extent difficult to store are reflected in the two-part tariff of his electricity bill. The standing charge represents the fact that it is extremely expensive to provide a service capable of giving him *carte blanche* to take what he wants from the power system; the low and diminishing charge for units reflect the fact that once the power system has been installed, the more use he makes of this expensive plant the cheaper it will be for everyone. But as the years go by and the importance of capital charges in these power industries goes up, they may bring about yet further effects upon his bill. Coal costs him more in the winter; eventually, electricity may cost him more at peak hours than if he can use it, in, say, a storage water heater, during the night.

A BLOCK OF "FACTORY FLATS"

In Long Street, in Shoreditch, the first of the London County Council's "Unit Workshops" has now been occupied. This is a building which in design resembles a block of flats and it has been specifically erected for small manufacturers displaced by the L.C.C. slum-clearance schemes. Unit Workshops are so called because the building is divided into units of accommodation, each being of 1,200 sq. ft. Long Street contains fifty-six such units and the manufacturer or trader can take part of a unit (*e.g.*, a quarter or a half) or more than one unit, according to his requirements. The traders in occupation include furniture-makers, leather and metal goods workers, dressmakers, glaziers and a firm engaged on alphabetical indexing. Two more Unit Workshops are shortly to be completed in Long Street and the L.C.C. plans similar buildings in Hackney, Stepney and on Woolwich Industrial Estate.

NEW WORKSHOPS FOR THE SMALL MANUFACTURERS IN THE EAST END OF LONDON: The building in Long Street, Shoreditch, has been erected by the London County Council. It is one of the new "Unit Workshops" which the L.C.C. is building for small manufacturers on the sites of old premises which have been demolished in slum-clearance schemes. Tenants include dressmakers, producers of leather and metal goods and furniture-makers.

On left—

A DRESSMAKER'S SHOP: Machinists and pressers are seen at work on the third floor of the block in Long Street. Their surroundings are light and airy.

A NEW MARSHALLING YARD FOR BRITISH RAILWAYS IS AHEAD OF ITS SCHEDULE

Nearing completion at Leyton, in north-east London, is a new marshalling yard for British Railways which will be the largest and most modern in the country. When the Temple Mills modernisation scheme was begun in 1955 it was estimated that the project would not be completed until late in 1960. Now, however, it is expected that the yard will be in operation this year—two years ahead of its original schedule. It is probable that the earlier estimated cost of £2,500,000 may be considerably increased, but Temple Mills will save an expenditure of £150,000 for British Railways each year.

At the present time 500 men are working in day-and-night shifts to finish the yard. The final system will involve 52 miles of track and 106 separate railroads. When the final rail goes into position work will begin on the installation of devices which will establish Temple Mills' superiority over older yards. Radar and other electrical equipment will be used for rapid communication purposes, the operation of points and the automatic braking of wagons.

The Temple Mills scheme means that ten interdependent small yards known as the Temple Mills group will be replaced. It also means that four outer yards between Goodmayes and Northumberland Park will be closed down. The passage of goods traffic on the Eastern Region will be made considerably swifter and more efficient when Temple Mills is complete.

THE NEW MARSHALLING YARD IN NORTH-EAST LONDON: This view of Temple Mills, Leyton, is from the main water storage tower. On the extreme right are the main passenger and goods lines and in the middle distance towards the left is the new yard control cabin. The Temple Mills Marshalling Yard, which is now nearly completed, was originally not due to be finished until 1960.

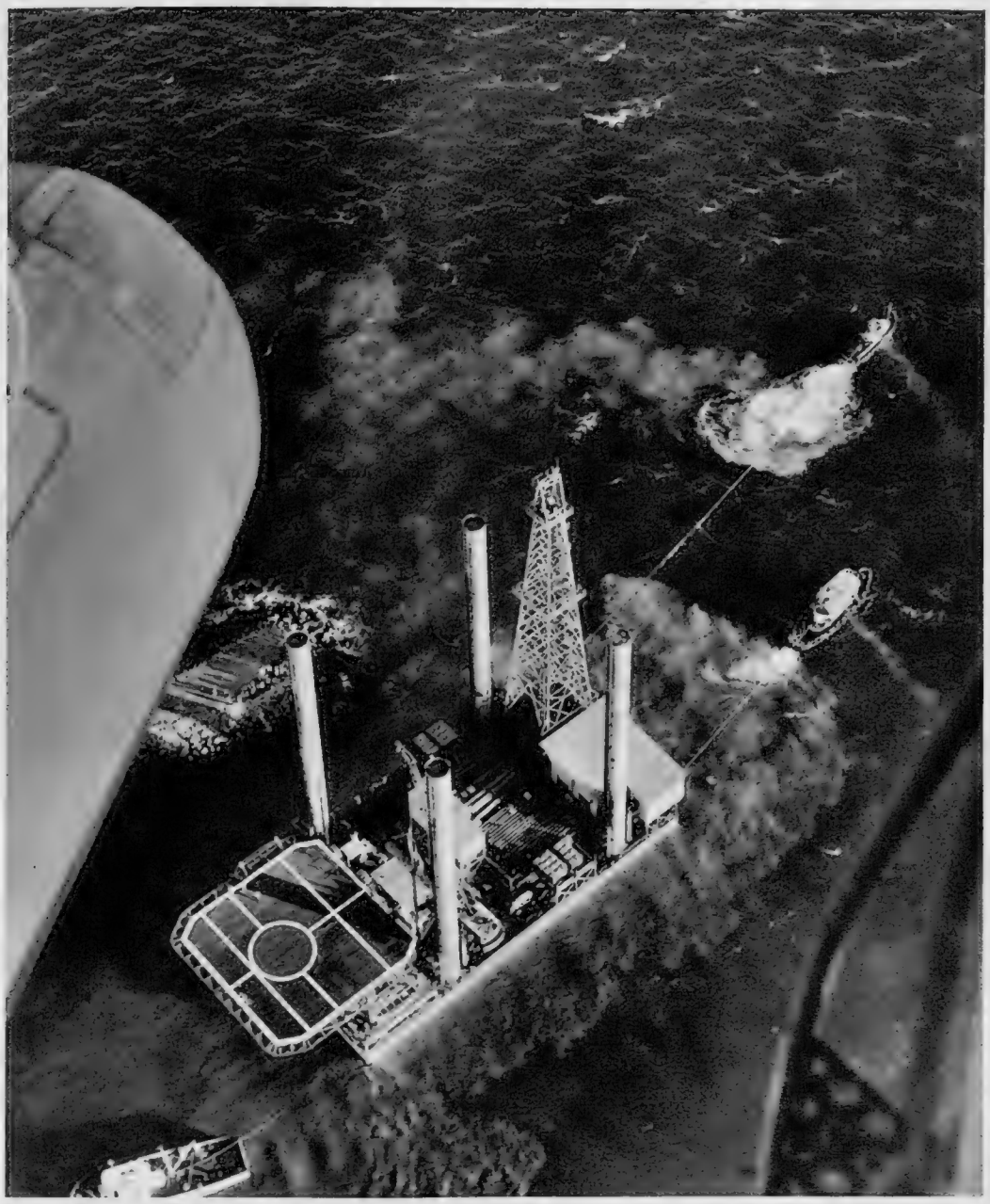
INSIDE THE WAGON REPAIR SHOP: This is the wheel bay of the wagon repair shop which was recently completed. The original figure of £2,500,000 for the Temple Mills scheme will be greatly exceeded, but savings to British Railways owing to greater efficiency in goods clearing will amount to £150,000 per year.

COMPLETING THE HUMP: The hump, seen in the centre above its newly-completed bridge, is the keystone of marshalling-yard operation. From here the wagons roll down the incline to their appropriate sidings after shunting. The control cabin is situated on the right centre.

On left—

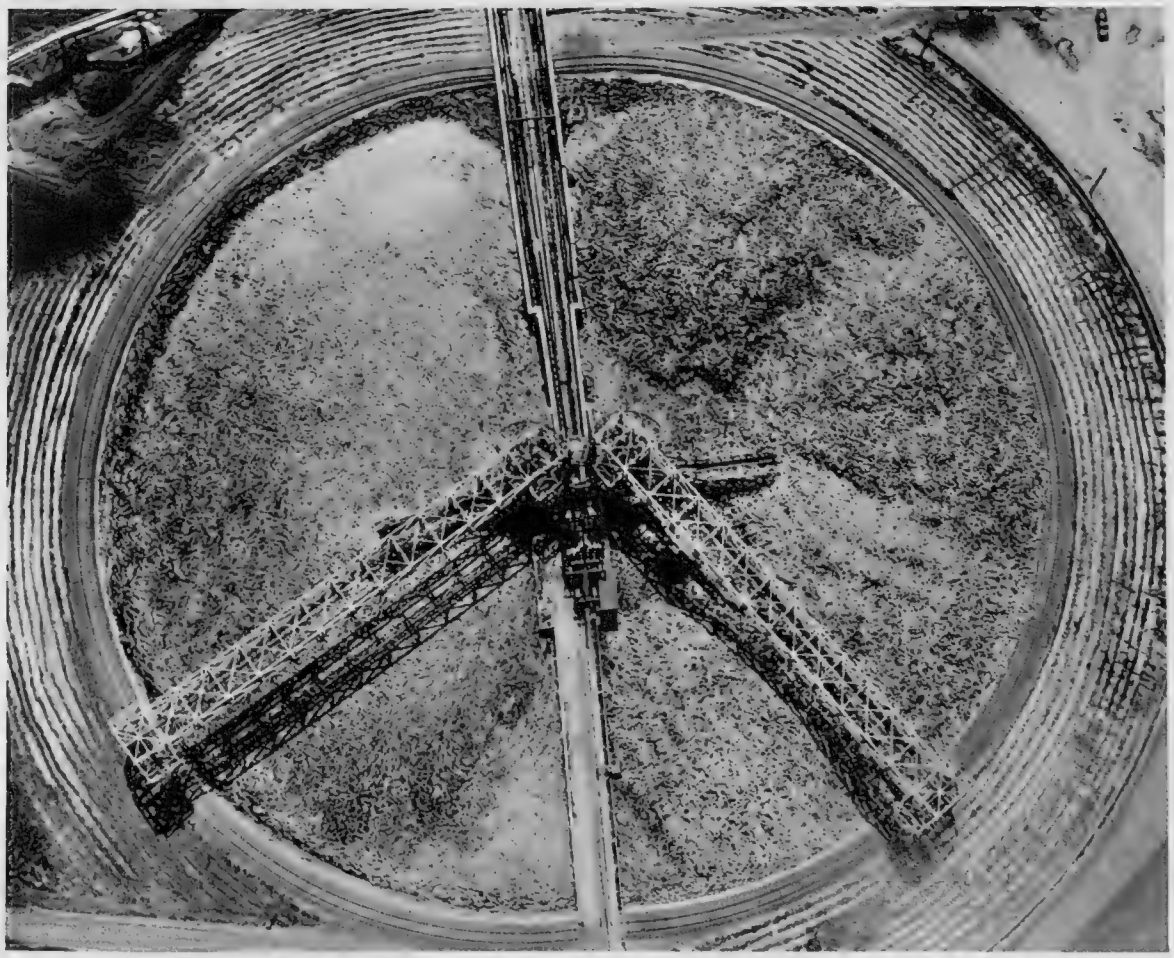
AN AUTOMATIC RETARDER: A wagon rolling over this stretch of track is controlled by the application of the automatic retarder. The pneumatic cylinders which work the mechanism can be seen on each side of the rails.

PROGRESS IN INDUSTRY AND ENGINEERING—*A Weekly Survey of Achievement in Britain and Overseas*



OIL FROM THE SEA-BED

The drilling barge *Adma Enterprise*, which recently completed a 6,800-mile journey from Audorf, on the Kiel Canal, in Germany, to the Persian Gulf (described in the issue of THE SPHERE for January 11, 1958), has now reached its final site, 20 miles off Das Island. Already drilling operations have begun and it is hoped that soon oil will flow from the sea-bed. The huge barge, which is now in effect a man-made island, rests on the bottom of the sea on four "legs" each 161 ft. long. A 140-ft. drilling tower stands on the main platform, and a helicopter landing platform is placed alongside. Helicopters are the main means of communication with the mainland. The picture, *above left*, shows an aerial view of the barge being towed out to its position from Das Island. Its legs have been retracted to their full height. *On right*—The *Adma Enterprise* is silhouetted against the sunset at its permanent site. The barge was built to the design of the De Long Company of New York for British Petroleum and the Compagnie Francaise des Petroles. The company which is actually performing the drilling operations is Abu Dhabi Marine Areas Ltd. British Petroleum has a two-thirds interest in the drilling firm and the French company has a one-third interest in it.



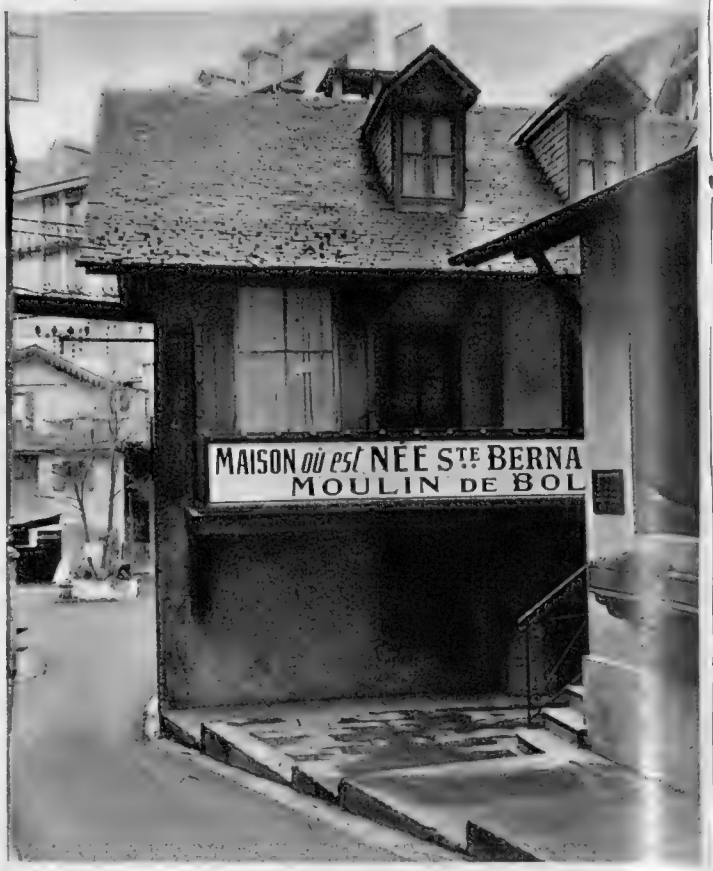
A GIANT STORAGE BOWL FOR A UNITED STATES NEWSPRINT MILL

The picture *on the left* is an aerial view of the log bowl at the new mill for producing newsprint at Calhoun, Tennessee, in the United States. It is said to be the first of its kind ever built for a paper mill. It is 489 ft. in diameter, 40 ft. deep and lined with concrete. The bowl holds enough water to float a 10,000-ton ship. The new mill, which has been built for the Bowaters Southern Paper Corporation, cost over £35,000,000. Each day it consumes nearly 1,500 cords of logs—a cord is 128 cub. ft. of piled logs—and its present annual output is 300,000 tons of newsprint. The picture *above* shows a huge mechanical claw mounted under a steel girder rotating arm dropping logs into the bowl. Six weeks' supply for the mill can be stored without deterioration in the Southern climate.

CENTENARY AT LOURDES

The Miraculous Manifestation in the Town in the French Pyrenees Occurred 100 Years Ago this Month

THE SCENE OF THE MIRACLE OF LOURDES : The statue of the Virgin Mary stands in the Miraculous Grotto. It was here that a hundred years ago the shepherd girl, Bernadette Soubirous, is reputed to have seen a series of visions of the Virgin. These manifestations made Lourdes a renowned centre of faith healing.



BIRTHPLACE OF A SAINT: In this simple house the future St. Bernadette was born on January 7, 1844. Her father was a miller. The child suffered from poor health, and as a result of her visions she found the springs of the healing water, which soon began to work remarkable cures.

IN THE CENTRE OF THE TOWN: Behind the statue of St. Bernadette Bernadette Exhibition. Above rises the castle, which was of its medieval buildings and is now a museum with

SHOPS WITH SOUVENIRS FOR PILGRIMS : They display a wide variety of articles and among the most popular are the bottles in which the healing water can be carried away. In an average year about 1,000,000 pilgrims go to Lourdes. In this centenary year of Bernadette's visions it is anticipated they may number as many as 8,000,000.

LOURDES is probably the most renowned centre of faith or spiritual healing in Europe. Until a hundred years ago the town far down in the South of France, on the edge of the Pyrenees, was little known outside its own locality. Perhaps it sometimes attracted English people with an interest in history, for the medieval castle was, and still is, a reminder that under the Treaty of Bretigny in 1360 Lourdes was handed to the English and remained an English stronghold until the start of the next century.

Then on February 11, 1858, the story of the town began to change. On that day a fourteen-year-old shepherdess named Bernadette Soubirous was crossing the River Gave at the Grotto of Massabielle, when, she claimed, she had a vision. A beautiful lady, whom she identified as the Virgin Mary, appeared to her. This manifestation was repeated several times on subsequent days. On February 25,

BUILDING A NEW CHURCH: Scaffolding surrounds stone-work which will be part of the new basilica in Lourdes. It will be one of the largest churches in France and dedicated to St. Pius X, who canonised Bernadette.

AN UNUSUAL ECCLESIASTICAL DESIGN: There will be fifty-eight of the V-shaped pillars, some of which are seen on the left, in the Basilica of St. Pius X. The entire church will be in the shape of a fish, which was a symbol used by the early Christians.

is the museum of Our Lady of Lourdes which is devoted to a an English stronghold from 1360 to 1406. It retains some exhibits illustrating the life of the people of the Pyrenees.

PREPARING FOR A RECORD PILGRIMAGE: The old basilica near the Miraculous Grotto is being redecorated for the year in which a record number of pilgrims is expected in the town near the Pyrenees and the frontier of France and Spain. The old basilica was built in the thirteenth-century style by Hippolyte Durand between 1868 and 1876.

apparently under instruction from the vision, Bernadette scratched the ground and a spring began to flow. Such was the discovery of the now famous healing water of Lourdes.

Bernadette was a backward and ailing child and at first her visions were treated with the utmost scepticism by the authorities. Reports soon began to circulate about the healing powers of the water of the spring and the ecclesiastical authorities decided on a full investigation. The matter was examined by diocesan and then papal representatives, and eventually the authenticity of the miracle was accepted. Bernadette entered a convent—it is said the asthma from which she herself suffered was never cured—and she died in 1879. In 1925 she was beatified and eight years later she was canonised.

Long before the opening of the present century pilgrims were flocking to Lourdes and numerous recoveries from serious illnesses were recorded. The subject of spiritual healing became a matter of great contention—especially after the publication of Zola's great novel *Lourdes* in 1894—and it continues to be hotly debated by theologians, philosophers, psychologists and medical men at the present day. There is, however, apparently no question of the authenticity of many of the cures worked at Lourdes.

To the devout it is a place particularly singled out for divine revelation. Pilgrims travel there from a multitude of countries, their numbers increasing each year. It is calculated that 1,000,000 men and women annually make pilgrimages, and in this centenary year the total may be eight times more than the average.

Already great preparations are being made. The most sacred place in Lourdes is the Grotto of Massabielle, the scene of Bernadette's visions of the Virgin and now known as the Miraculous Grotto. Below a statue of the Virgin is an altar. Above the Grotto is the Church of the Rosary in front of the Basilica of Lourdes. The former is richly decorated in a Byzantine style. The latter, in a form of neo-Gothic, was built some ninety years ago.

However, it is felt that another basilica will be needed for the multitude of pilgrims this year and a vast new edifice is nearing completion. Its structure covers nearly 17,000 square yards and it will certainly be one of the largest churches in France, if not the largest. Its design is unusual, for it takes the shape of a fish, which was a symbol used by the early Christians in the days of their persecution. Inside are fifty-eight V-shaped pillars, surrounding a great empty space in which there should be a profound feeling of the Divine. There will be no seats or ecclesiastical decorations. (*A new life of St. Bernadette is reviewed on page 196 of this issue.*)

The Sphere of Travel

HOLIDAYS IN EUROPE—I

Holiday Facilities and Possibilities in Scandinavia, Finland, Benelux Countries, Germany and Switzerland

By GORDON COOPER

TRAVEL agents are already convinced that 1958 will be a record year for foreign travel; and it is estimated that nearly 2,000,000 Britons will be taking their holidays abroad—a considerable advance on the figures attained during last year. Obviously, early arrangements must be made if satisfactory accommodation is desired, for while you can often be fitted in somewhere with a late booking, yet a small room on " the third floor back " is hardly a happy solution. After all, your room is your home during the period of your stay.

While cost obviously enters into most people's holiday budgets, I have found that in many places the cheapest hotels turn out to be the most expensive. At any rate, the difference in price between one hotel and another is ridiculously small in comparison with the refinements and luxuries which are offered for the very small extra expense. These refinements and luxuries are especially appreciated after dark and on wet days, when such amenities as comfortable lounges are available—and appreciated. The alternative, often all that is possible in a second-class hotel, is either to sit grimly in some deserted local café, or to retire to one's room which usually lacks a comfortable chair. It is appropriate at this point to give a useful travel hint: always take with you on holiday a good supply of reading matter. I find one of the omnibus collections of the writings of well-known novelists, especially Conan Doyle, an invaluable companion.

This is the first of two articles on European holidays. My next, which will appear in these pages on February 15, will deal with the southern countries of Europe. For the present I am discussing Scandinavia, the Benelux neighbours, Germany and Switzerland.

NORWAY.—Despite its lengthy coastline, Norway possesses few seaside resorts with good beaches. On the west coast, for instance, it is only at Sola Strand and Viste, both close to Stavanger, that there are good hotels and good bathing sands. At the former place there is also an open-air swimming-pool. The Bergen Line offers special inclusive prices for a twelve-day holiday at either the Sola Strand Hotel or the Viste Hotel, inclusive of the journey by sea there from Newcastle. Particulars from any travel agent.

SWEDEN.—In this vast country, twice the size of Great Britain, a good all-round impression could be gained by taking a ship or flying to Gothenburg, spending a few days at one or other of the west coast resorts, such as Tylosand or Bastad, then making the cruise through the Göta Canal district—organised by Linjebuss—and ending with a stay in Stockholm, one of Europe's finest capitals. Alternatively, in place of a seaside resort you could substitute a visit to Rattvik, on Lake Siljan and the costume sector of the country.

FINLAND.—You can now leave London after lunch by air and be in Helsinki before midnight, so this most compelling of European lands is hardly inaccessible. For a bird's-eye view of the country, I recommend three-four days to be spent in the interesting capital, then by air again up to Finnish Lapland, where the rest of the holiday could be spent in one or other of the well-found Tourist Inns. Finland Travel Bureau Ltd. has available an attractive brochure (in English) which gives particulars of many tours.

DENMARK.—In *Mary Rose*, Barrie, who was one of Britain's great " island-makers," tells us of the " Island-That-Likes-to-be-Visited." For me it always calls to mind Bornholm, which is often called Scandinavia-in-miniature. Its round churches are unique in Europe, but its main appeal is that it is one of the most charming spots for a restful holiday. I have not seen its name (fortunately) in any travel agent's list. I recommend the small resort of Gudhjem, where the island's renowned " Bornholmers " (smoked herrings) are cured. Its name means " God's Home," and it is fully justified. Bornholm, incidentally, is easily reached from Copenhagen by air and by overnight steamer service.

HOLLAND.—Low rolling hills—yes, there are some hills in Holland—great woods, running streams, moorlands and meadows are typical of the scenery of the Province of Limburg, which straggles alongside the meandering Maas (Meuse), a long, thin stretch of territory in the south-eastern corner of the Netherlands. Maastricht, the provincial capital, has been the scene of many historical events; its chief sight is St. Servaas Cathedral, the oldest church in Holland, for it was founded in the sixth century. Then, on the outskirts of Maastricht, there is St. Pietersburg, a hill pierced with a labyrinth of halls and galleries; there are 100,000 galleries and 11,332 crossroads, so you don't want to lose touch with the guide! There are similar man-made caves at Valkenburg, a summer resort east of Maastricht. This is a pleasant place for a holiday, for there are many pleasant walks in the neighbourhood and opportunities for visiting many interesting, old castles. Also in this province is Tegelen, where a Passion Play is enacted each five years, the next occasion being in 1960.

BELGIUM.—Since the war, Belgium has not attracted nearly as many British visitors as it did in pre-war days. But its attractions are still there, including the Ardennes, which Wordsworth called a " fertile region, green with woods and fresh with rivers." Although there is nothing sensational about the scenery in the Ardennes, its environment still grows on one: the glorious air, the lovely beech forests, the not-too-steep hills, the wild moorlands of the Hautes Fagnes, the sweet-running streams, the amazing caverns, the straggling, unsophisticated villages, and the occasional castle. It is, indeed, one of the most delightful parts of Europe in which to relax, wandering at will, just for the sake of leisure and not because there are essential sights to be visited.

Geographically, the Ardennes is situated in three Belgian provinces: Liège, Namur and Luxemburg. I think it is in the last-named that you feel right off the beaten track. Laroche is a good centre in the northern area, Habay-la-Neuve in the south. But my own favourite resort is Bouillon, not far from the French frontier. Here are the remains of the castle of Godfrey de Bouillon, the leader of the first Crusade. This grim, ruined castle, now a great pile of grey stones, in the crevices of which grow wild flowers of many kinds, the silvery Semois River, and the beautiful woods which form a dark-green background, make a charming picture and one of the most delightful scenes in Belgium. From Bouillon, there are opportunities for countless attractive walks, and the Hotel de la Poste is a pleasant place, with good food, in which to lodge.

LUXEMBOURG.—It was Sir Winston Churchill who stated " Of all the countries I have visited the Grand Duchy of Luxembourg is the smallest, but it is the one that has charmed me most and where hospitality has been most simple and cordial." In a nutshell, this describes the attraction of the smallest of the Benelux countries. For anyone who wishes to discover its charm, where size isn't everything, then its capital is an excellent base. From it you can visit any part of the territory in a day's excursion, and the specially reduced price of a five- or ten-day season ticket means that any number of journeys may be made on all the principal tourist lines at a very moderate cost.

Luxembourg City, too, is a place of extraordinary interest and I cannot exaggerate the dramatic effects of its setting. Quite close to the railway station is the Pont Adolphe, which is, I believe, the largest bridge of hewn stone in the world, and on the far side is the old historic city, with lovely flower-beds, ablaze with roses in summer, in all the boulevards. This vista from the bridge is, indeed, one of the most striking in Europe, while living in the capital recalls the pages of an Antony Hope novel. By the way, Luxembourg is one of the few countries in the world where genuine absinthe is still legal; a drink costs about 4s., and a full bottle about 30s. Note, too, that the beer and wines are excellent—I like its sparkling Moselle, which is, however, unobtainable in Britain.

THE CHARM OF THE SWISS COUNTRYSIDE: This view of the northern end of the Lac de Joux is from the 3,300-ft.-high mountain, Le Pont. In this area the slopes are gentle and the mountains low and thickly wooded. Nearby is the little town of Vallorbe. On the right of the picture is the Lac Brenet.

COASTAL CRUISES

AT the beginning of April a new air service to San Francisco will be run on a twice-a-week basis by B.O.A.C. The Britannia will be used and the journey will only take 18½ hours. This is to be one leg on the projected B.O.A.C. round-the-world service which will be ready for operation next year.

The s.s. *Patricia*, the 8,000-ton ship which used to run between London and Gothenburg, has now changed her name to the s.s. *Ariadne* and has become the new cruise ship of the Hamburg-America Line. The accommodation has been completely altered to provide one-class accommodation for 300 passengers. Since the ship will be entirely devoted to cruises, the accent of the new amenities is on pleasure. A lido deck with an open-air swimming-pool and a club, together with a large dining-room which can seat every passenger at one sitting, are touches which will appeal to the inveterate cruise-goer.

During the spring the s.s. *Ariadne* has a programme of cruises from Genoa which return to Venice and others which commence at Venice and return to Genoa. There is an originality about the arrangements which will appeal to those who have exhausted the usual cruise itineraries. There is one, for an example, to West Africa and Morocco, which goes as far as Freetown and Dakar. Another calls at Port Said, Cyprus and Rhodes before passing through the Dardanelles into the Black Sea. There are eight cruises in all to choose from.

In summer and autumn, cruises to Norway, Iceland and Spitzbergen have been arranged from Hamburg and Cuxhaven, while from Genoa and Venice further cruises to Greece, Turkey, Spain and Morocco are available up to October 31. Prices vary, the minimum fares for a fourteen-day cruise being £78; a twenty-day cruise £117. W. D. C. C.

A SCANDINAVIAN SEAPORT : Stavanger is the fourth largest city in Norway. Among its many attractions is the Cathedral of St. Swithin, which in parts dates back to the ninth century. Close to Stavanger are some of the best beaches on Norway's west coast. They are situated at Sola Strand, where there is an open-air swimming-pool, and Viste. Both resorts have excellent hotels and fine sands for bathing, a rare feature in spite of Norway's long coastline.

GERMANY.—For those seeking a holiday away from beaten track, I can recommend the Bayrischer Wald, Franconian Switzerland and the Steigerwald—all in southern Bavaria. In these three districts you will find little medieval towns where time has stood still. The Bayrischer Wald lies between the Danube and the Czechoslovakian frontier. It is a mountainous district, with great forests, and its numerous valleys, down which rivers run to the Danube, break into a mountain massif, whose summits rise 2,000 ft. and more above the valleys. Among the places in which to stay are Cham, Fürth and Zweisel, but there are clean, simple inns all about the countryside. The Bayrischer Wald is also noted for its curious traditional festivals; further particulars can be obtained from the Tourist Office in Regensburg.

Franconian Switzerland, with its wooded hill ranges, lies west of the *Autobahn* running between Nuremburg and Bayreuth. It contains some picturesque little towns and ancient castles, while a distinctive feature of the district are its caverns. In Teufelshöhle, for instance, a great many bones of Ice Age animals have been found, and a complete skeleton of a bear has been reconstituted. The resorts I can recommend are Streitberg, Muggendorf, Behringersmühle and Gossweinstain, all with satisfactory hotel accommodation. Another pleasant touring area in this part of Bavaria is the Fichtelgebirge, some miles northeast of Bayreuth. It is a delightful area for forest walks, and Warmensteinach, Bischofsgrün and Bad Berneck are pleasant, small resorts, while I was also very attracted by the hamlet of Fleckl, which has simple accommodation.

Lastly, but not least, the Steigerwald, a romantic district lying between Würzburg and Bamberg. Here are several medieval little towns set amidst splendid forests. The wines in this region are renowned: Ochsenfurt, Markbreit, and Iphofen stand out in my memory, especially the last-named. With its town walls, gate towers, and timber-framed houses it is like something out of a fairy-tale book. And the Zehntkeller, the local inn dating from 1720, is a delightful spot in which to linger. I still remember well the bottle of 1950 Iphöfer Kronsberg Sylvaner Beerenlausese Weingut Julius-Spital which, along with some tasty Bratwurst sausages and freshly-baked bread, provided a most delightful second breakfast or, perhaps I should say, an appetizer for lunch, that I enjoyed in this historic hostelry.

SWITZERLAND.—Most people think of this country in terms of mountains, but it also has a pleasant countryside which offers wide open spaces. I refer to the Swiss Jura, which is easily reached from Berne and Geneva, while it can also be traversed by those coming by road from a Channel port. Here, amidst the Franches Montagnes, is a centre for horse-breeding, with Saignelégier as its most important town. I can recommend it to those who like a riding holiday. There are also places of cultural appeal in this area, notably Porrentruy, which has some notable baroque buildings, and Saint-Ursanne, with an important Romanesque collegiate church.

Elsewhere in this north-western corner of Switzerland are the towns of Neuchâtel, Morat, Fribourg, and Bienne, each one possessing its own particular charm and diversity of appeal. I might add that in Neuchâtel, Morat and Bienne, which I visited recently, I found most excellent hotels: the *Beaulac*, *Le Vieux Manoir*, and the *Elite*, respectively. At Morat, especially, a prolonged holiday could well be spent, for the hotel there lies at the lakeside. As for Fribourg, the reward of listening to an organ recital in its cathedral is great indeed, for it is one of the best organs in Europe. The playing of a piece called "The Storm" is so realistic that one feels the heavens are just about to burst overhead.

USEFUL ADDRESSES

Belgian Tourist Office, 167, *Regent Street*, *London*, *W.*1.

Denmark: 71, *Piccadilly*, *W.*1.

Germany: 6, *Vigo Street*, *W.*1.

Luxembourg: 38, *Parliament Street*, *S.W.*1.

Netherlands: 38, *Hyde Park Gate*, *S.W.*7.

Norway: 20, *Pall Mall*, *S.W.*1.

Sweden: 52, *Conduit Street*, *W.*1.

Switzerland: 458, *Strand*, *W.C.*2.

World Sport and Travel Service, 198, *Sloane Street*, *S.W.*1.

Cornelder's Travel, 114, *Shaftesbury Avenue*, *W.*1.

Swedish Travel Bureau, 7-8, *Conduit Street*, *W.*1.

Pickfords Travel Service, 205, *High Holborn*, *W.C.*1.

Yuills Ltd., 24, *Royal Exchange*, *Threadneedle Street*, *E.C.*3.

Linjebuss: U.K. agents, British and Northern Shipping Agency Ltd., *Marlow House*, *Lloyds Avenue*, *E.C.*3.

Bennett's Travel Bureau Ltd., 11, *Grand Buildings*, *Trafalgar Square*, *W.C.*2.

Bergen Line, *Cockspur Street*, *S.W.*1.

Finland Travel Bureau Ltd., 1, *Keskuskatu*, *Helsinki*.

Clipper Line: General agents, *D. H. Drakeford Ltd.*, 60, *Haymarket*, *S.W.*1.

Finnair, 121, *Ebury Street*, *S.W.*1.

Sabena, *Sabena House*, 36-37, *Piccadilly*, *W.*1.

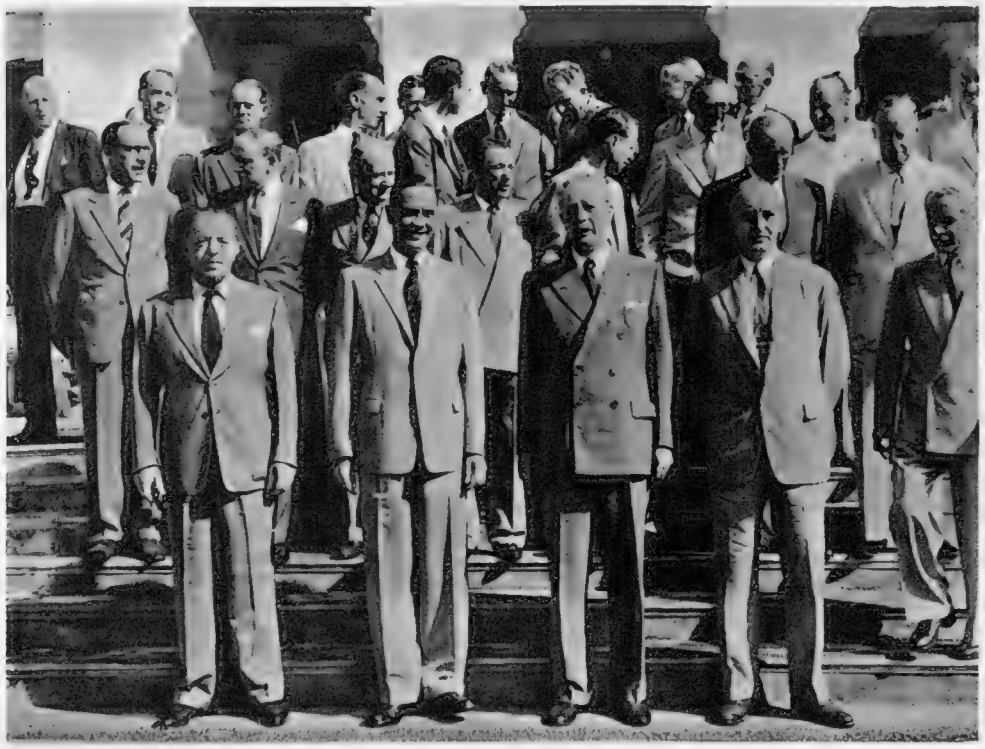
THE PREMIER ON TOUR

Mr. Macmillan's Stay in Ceylon and Singapore

In Ceylon and Singapore Mr. Macmillan reached the middle stage of his tour of the Commonwealth. On arrival from Karachi at the Ceylonese airport of Katunayake he received a warm and spontaneous welcome and with Mr. Bandaranaike, the Prime Minister of Ceylon, he drove to Colombo. On the following day in a speech at a dinner of Members of Parliament, Mr. Macmillan announced that it had been decided to double Britain's allocation of £10,000 for emergency medical aid and supplies for the relief of the victims in the recent floods in Northern and Eastern Ceylon. His next stop was Singapore. Although it was in every way a flying visit of only twenty-four hours, the Prime Minister found time to meet and talk with numerous senior British officials and diplomatists, Mr. Lim Yew Hock, the Chief Minister, and several of his Government colleagues. During his flight from Singapore to New Zealand he contracted a cold and a temperature but was soon reported to have recovered. He was due in Australia this week and should arrive home on February 14.

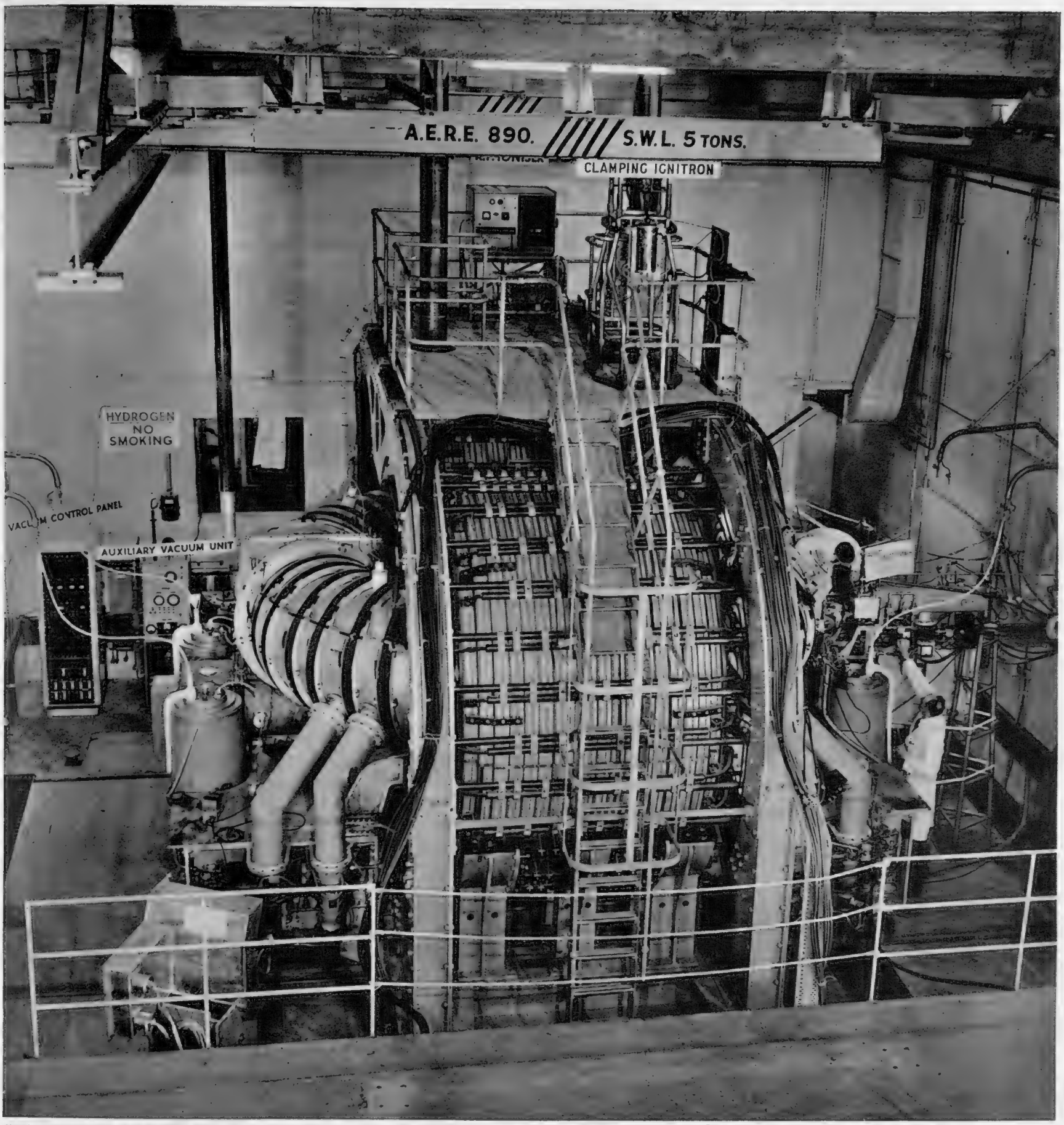
WELCOME TO CEYLON: Mr. Macmillan is greeted by Mr. Bandaranaike, the Premier of Ceylon, at the airport of Katunayake. On left is Lady Dorothy Macmillan and in centre Mr. A. P. Jayasuriya, Minister for Home Affairs.

AT A SACRED SHRINE OF BUDDHISM: Watched by a large crowd outside, the Prime Minister and Lady Dorothy Macmillan climb the steps at the entrance of the Temple of the Tooth in Kandy. In this Ceylonese shrine is kept the precious relic which is said to be a tooth of Gautama Buddha.



TWENTY-FOUR HOURS IN SINGAPORE: With the Prime Minister in front are, from the left: Sir Roland Turnbull, Governor of British North Borneo; Sir William Goode, Governor of Singapore; Sir Robert Scott, Commissioner-General in South-East Asia; and Mr. Malcolm MacDonald, High Commissioner in India. During his day's stay in Singapore Mr. Macmillan met a number of senior British officials and diplomatists. *On right*—He reads a prepared statement to the Press on his arrival at the airport. On his left is Mr. Lim Yew Hock, the Chief Minister of the Government of Singapore.

A MEMORABLE OCCASION: Mr. Bandaranaike introduces Mr. Macmillan to prominent personalities at the airport. In Colombo the British Premier said Britain would double its contribution to Ceylon's flood relief.



ZETA REVEALS SENSATIONAL POSSIBILITIES: The apparatus at Harwell is so named because it is a Zero-energy thermonuclear assembly. Its purpose is to experiment in the fusion (or joining) of atoms, as opposed to their fission (or splitting). It aims at employing hydrogen power (hitherto associated with the H-bomb) for constructive purposes. Although research is in the elementary stages, Zeta should pioneer the way for producing power from sea water at extremely cheap rates.

H-POWER FOR PEACE

Zeta, Britain's Latest Nuclear Machine, Points to Most Cheap Production of Power From Hydrogen in Sea Water

THE release last week-end of details about the Zero-energy thermonuclear assembly at Harwell was another outstanding landmark in the scientific advances of the twentieth century. It may be premature to talk of generating power from the waters of the oceans, but the physicists concerned have expressed themselves as "optimistic" and believe that it may be done in twenty years' time. The implications of this upon the economics of the world are colossal.

Perhaps one can best understand this by considering what Zeta is doing. The object of this revolutionary machine is to apply the principles of the H-bomb to peaceful purposes. Hydrogen produces energy by means of the fusion, or joining, of atoms instead of their fission, or splitting. Fission is the system upon which the early A-bombs were made and upon which such constructive establishments as the atomic power station at Calder Hall function.

Fusion of atoms provides the heat for the sun and the stars, and its achievement must therefore require enormously high temperatures. The Zeta machine at the United Kingdom Atomic Energy Research Establishment station at Harwell consists in the main of two large pieces of apparatus—a pulse transformer surrounding what is technically known as a torus. The latter is a ring-shaped metal tube of 1 metre bore and 3 metres mean diameter. It looks not unlike the inner tube for a giant motor-car wheel. Deuterium or heavy hydrogen gas is fed into the torus. It is heated to astronomical temperatures and this causes it to "pinch"—that is, to flow round the centre of the tube and not to move outwards and touch the walls, in which directions it would lose its heat. The tremendous heat causes atoms to fuse and in so doing they give out energy. This energy can, of course, be transformed into other currents in the transformer. To ensure success, the great heat must be produced and held.

Such is the principle upon which Zeta has been experimenting. So far, the results have been spectacular enough. Temperatures have been achieved of 5,000,000 degrees Centigrade, which is a third of the temperature at the centre of the sun, and held repeatedly at intervals for a few thousandths of a second. Sir John Cockcroft stated last week at Harwell that he anticipated that within a year Zeta, with some modifications, will far surpass the sun's central temperatures and hold them for much longer periods than hitherto.

The revolutionary economic implications of Zeta lie in the word "hydrogen." As every schoolboy knows, this is a component of water. Heavy hydrogen or deuterium represents only a small proportion of ordinary hydrogen but plainly there is an abundance of it in the sea—some experts estimate enough to supply mankind with electricity for 1,000,000 years. Sea-water is certainly one of the most common commodities in the world, unlike coal or oil. Hydrogen power could be provided anywhere at nominal cost. Hence in spite of the inevitable huge cost in the initial and experimental stages, it should eventually prove the best of all investments.

In the nature of their calling, scientists are cautious. Sir John Cockcroft considers the possibilities of hydrogen

(*Continued on following page*)

THE CONTROL PANEL OF THE NEW APPARATUS AT HARWELL: Mr. E. P. Butt sits at the desk from which the whole sequence of operations in Zeta is controlled. Two cathode ray oscilloscopes enable the characteristics of the discharge from the apparatus to be studied.

A PROTOTYPE ZETA: The encased large and circular metal tube is the torus which was employed in one of the experimental constructions from which the present Zeta was evolved. The torus is the most essential part of a machine attempting hydrogen-fusion.

H-POWER FOR PEACE

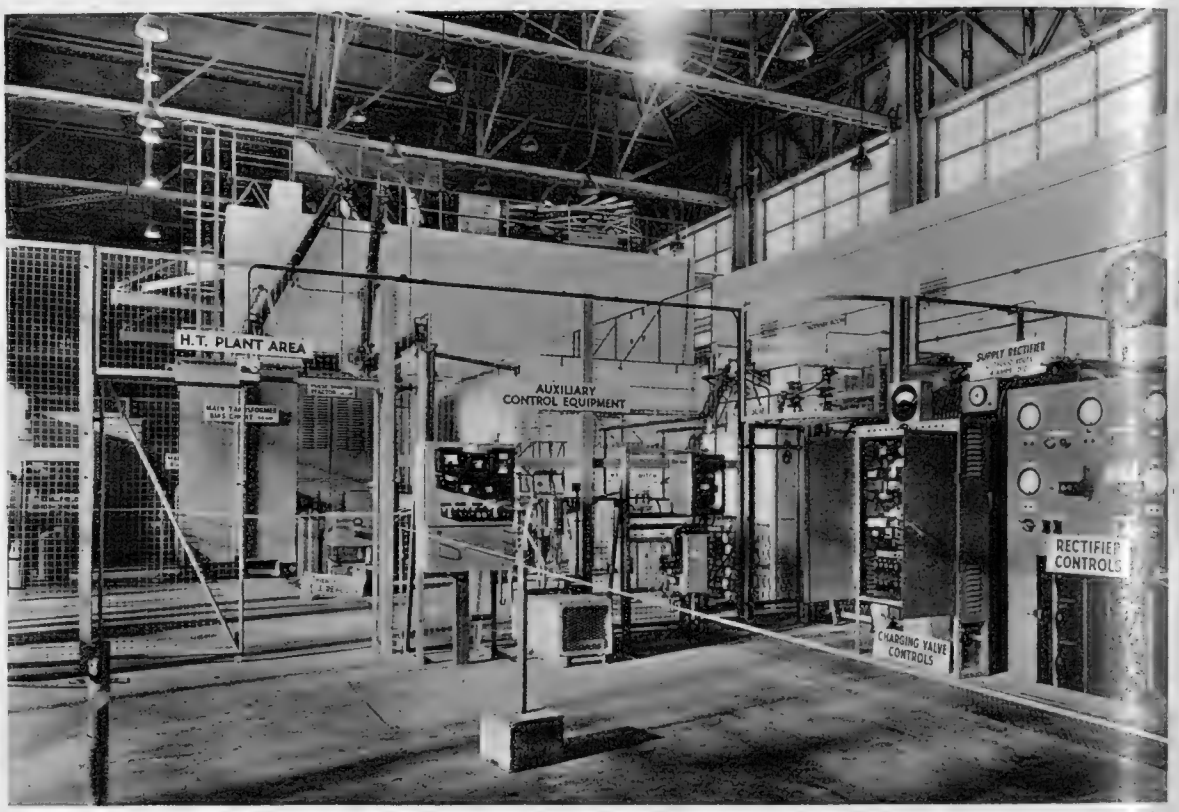
(*Continued from previous page*)

power 90 per cent. certain. He allows the 10 per cent. margin of error in case Zeta to date has been offering false promises. But he has also said that given proof that the apparatus is working upon the right lines—and this should be known one way or the other in the near future—then it is possible that power for commercial purposes from the oceans could be a fact in as little as twenty years.

Zeta, of course, is not something conjured by Harwell in the space of a few months. It is the culmination of a quarter of a century's research in Britain and elsewhere. The present Zeta is the Mark IV of its line. Nor is such research confined to the U.K. Research Establishment. In their laboratories at Aldermaston, Associated Electrical Industries, which helped in the construction of Zeta, have their own smaller experimental hydrogen power apparatus, "Sceptre." This has now progressed to Mark III.

Simultaneously with the release of the news about British research, statements were published regarding American progress in the hydrogen field at Los Alamos. British and American technical papers refer to a description given at Harwell in 1956 by the Russian physicist, Kurchatov, of a Soviet hydrogen experiment which failed but from which much useful information was obtained.

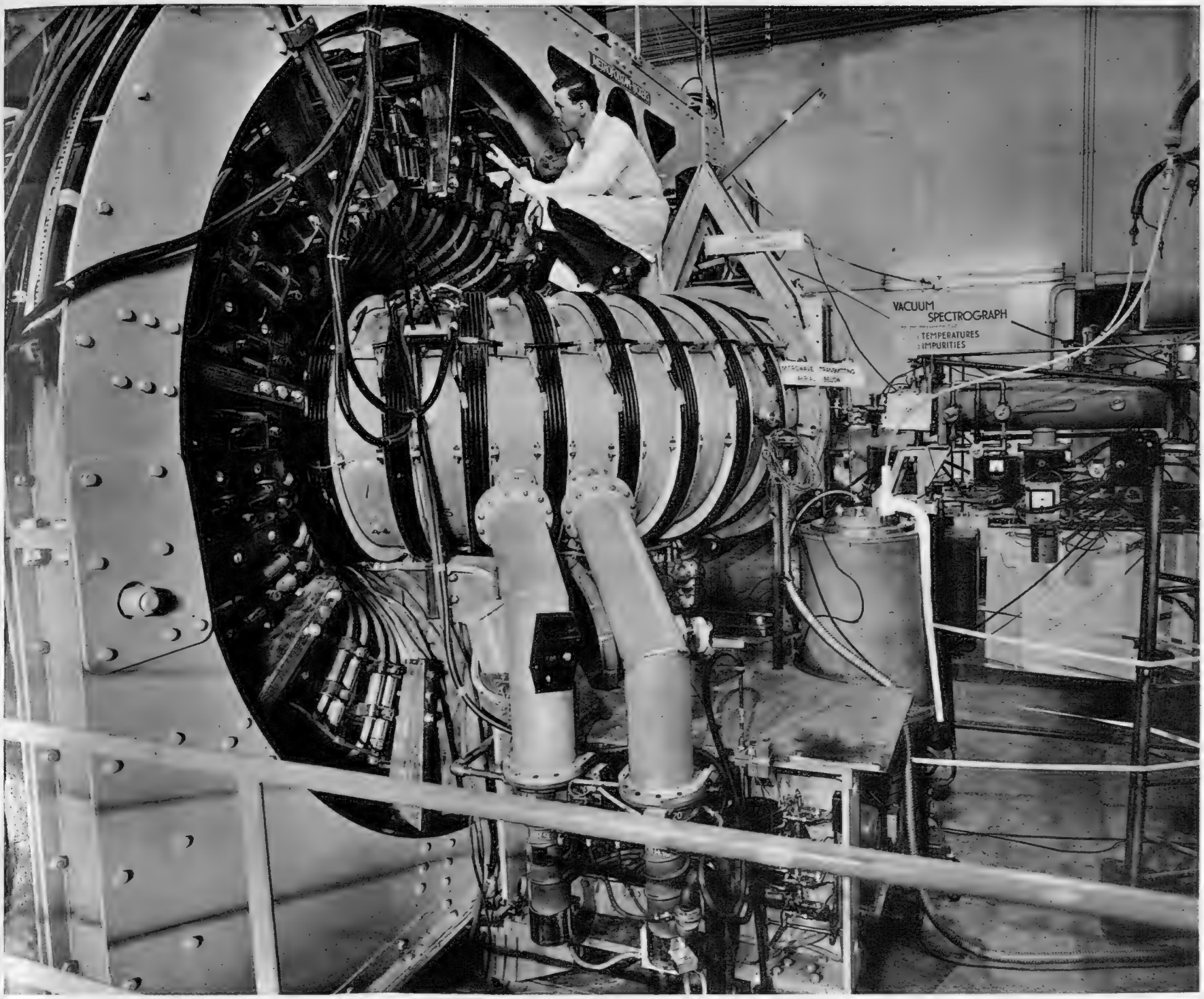
Zeta and Sceptre are achievements in which Britain takes a natural pride, especially as they continue the sequence of development in atoms for peace begun at Calder Hall. The pursuit of truth can be seen only as an eternal marathon, in which different individuals from time to time may take the lead. In the conclusion there will be no winners because there can be no losers.



THE PLANT AREA: This supplies the current for the torus and transformer of the Zero-energy thermonuclear assembly. To date, temperatures of up to 5,000,000 degrees centigrade—one-third of the heat of the centre of the sun—have been frequently achieved for a few thousandths of a second. Far greater heat and longer holding are expected.

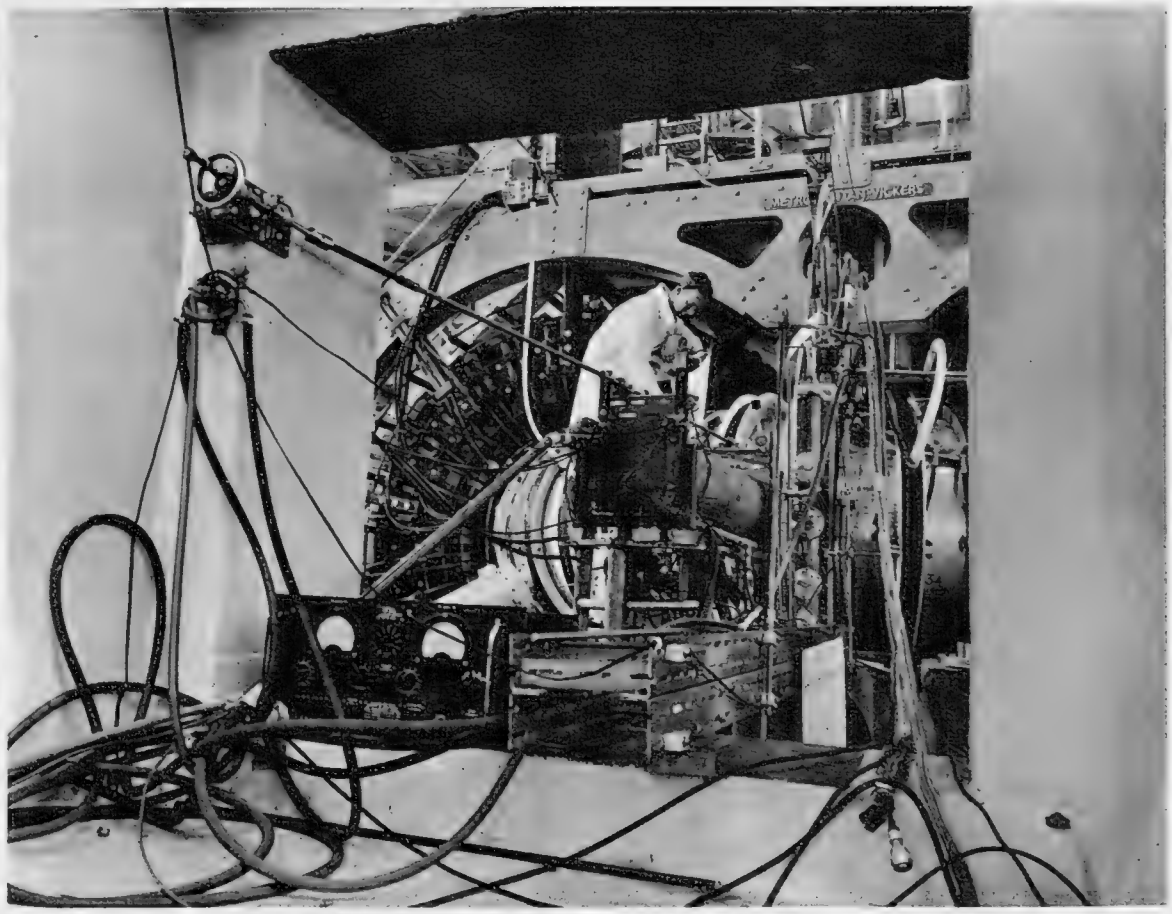
THREE OF THE MEN BEHIND ZETA: From the left are Dr. P. C. Thonemann, leader of the group which built the machine; Mr. Robert Carruthers, the designer; and Mr. R. S. Pease, of the Physics Division at Harwell. Most of the Zeta team are young men.

STUDYING RESULTS: The small torus surrounded by a transformer was originally built for the second of the Zetas (Mark II) from which the Zeta Mark IV, first shown to the world last week, was developed. Mark II is employed for instability studies in the present experiments.



A CLOSE-UP OF THE VITAL SECTION OF THE ZERO-ENERGY THERMONUCLEAR ASSEMBLY: The technician is perched on top of the torus which comes out from its surrounding transformer. The ring-shaped torus is of 1-metre bore and of 3 metres mean diameter. Deuterium or heavy hydrogen gas is fed into it at enormous heats which "pinch" the gas and keep it circulating round the centre of the tube. Fusion of atoms occurs when astronomic temperatures are reached and this fusion produces energy.

CHECKING FOR FUSION: A scientist watches the neutron counter scintillator which shows fusion potentialities. A neutron indicates that nuclear fusion has occurred.



AN OUTSTANDING BRITISH ACHIEVEMENT IN SCIENTIFIC PROGRESS: Zeta is seen from the image converter laboratory. Besides the research at Harwell, leading up to Zeta Mark IV, another series of experiments is being made on similar but smaller machines called "Sceptres" by Associated Electrical Industries at Aldermaston. A.E.I. also helped to build Zeta.

The World of Books

THE HEIGHT OF TRUTH

The Story of Wartime High-Altitude Photography; A French Soldier in Algeria; Hollywood and the Dodecanese; Novels with Historical and Contemporary Settings

ONE of the less-publicised but vital links in the chain of our war effort and its organisation was the high-altitude photography. Carried out at great risk, and interpreted by a handful of experts, it could well be said to have shortened the duration of the war and prepared us against many fresh dangers. One of these experts was Miss Constance Babington Smith, the W.A.A.F. officer who started the Aircraft Section of the Central Interpretation Unit alone in 1941, was in charge of it throughout its expansion until 1945, was lent to the U.S.A.A.F. Intelligence after VE-Day and continued her work in the Pacific theatre. Flight Officer Babington Smith was mentioned in despatches, received the M.B.E., and, from the Americans, the first Legion of Merit ever to be awarded to an Englishwoman. Her book, EVIDENCE IN CAMERA (Chatto and Windus. 18s.)—and was there ever a title more apt?—is the story of photographic intelligence in World War II and, as Lord Tedder has said, it is a story of British genius at its best. I have found this unquestionably the most impressive, as it is the most exciting book of the week or the month.

M. Jean-Jacques Servan-Schreiber has written the story of a war that is even closer to us in time and, to a Frenchman, perilously near both in time and actuality. Himself a newspaperman (he founded the Paris newspaper, *L'Express*, and is its editor), he was drafted into the Army and sent to Algiers for six months' active service. LIEUTENANT IN ALGERIA (Hutchinson. 16s.) is a volume dedicated to a better understanding of the war, first by his own countrymen, and is made up of accounts of his experiences, recorded talks with soldiers and officers, letters from them after they had read the book, and the writer's conclusions on the conduct of the fighting and the basic strategy. Readable, as one would expect from a professional, and of real significance as well. The translation from the French has been made by Mr. Ronald Matthews.

GULBENKIAN: AN INTERPRETATION (Heinemann. 21s.) has been written by Mr. John Lodwick in collaboration with Mr. D. H. Young, who was for many years Gulbenkian's private secretary. In common with other immensely rich men who have influenced world economics, the late Calouste Sarkis Gulbenkian was a man of mystery and has remained one to a great extent, in spite of the intimate judgments of one of his biographers and the brilliant perception of the other. To read this book is immensely entertaining: it bears, after all, the imprint of a brilliant and original novelist. To reflect on the career which is the book's subject is perhaps less edifying in spite of the assessment which Mr. Lodwick finally makes of the old man in his Lisbon hotel: "Good-bye, then, dear, solitary and tormented Calouste. There was only one rule of life which your intellect realised, but which your emotions would not conceive as possible; and this was that the truth which men make in the morning will be in the dustbin by night."

One of the two best (and I privately think *the* best) teams of husband-and-wife actors in the world are the subject of a new small work by Mr. George Freedley. This study of their work is not so much a critical opinion as an essay in hagiography, but it will be both useful and enjoyable reading for keen theatregoers, since it contains a full list of the pair's stage, and rare film, appearances and many photographs of which, I am happy to record, the best is also the latest. THE LUNTS (Rockcliff. 21s.), in other words, is a very acceptable monograph.

The next two books are personal, well-observed and competently recorded. TO SEE THE DREAM (Hodder and Stoughton. 16s.) is by Miss Jessamyn West and is a journal which she kept during the greater part of a year when her novel, *Friendly Persuasion*, was being filmed in Hollywood. Miss West's diary is essentially that of a professional writer, not so much in the conscious turning of a phrase or in an evident expectation that it would eventually be published, but because writers, wherever they are writing, in letters or even in notes for the daily help, do tend to write like writers, just as, in any circumstances, actors speak like actors. Interesting stuff, though, and some sharply-focussed pictures of life as it is lived in southern California.

MERMAID SINGING (Michael Joseph. 18s.) is Mrs. Charmian Clift's account of the adventure on which she and her husband, young Australian journalists living in London with their two small children, embarked when they decided to leave this climate, domestic and meteorological, and settle in one of the Dodecanese islands. They chose Kalymnos, less than fifty miles from the coast of Asia Minor, poverty-stricken and as innocent of tourists as might be any other bare, remote island where the only income is from sponge-fishing and only a tenth of the people are occupied by that. Mrs. Clift writes with engaging frankness about the changes and about the first roots which her little family have been putting down, but the charm of her book lies in the descriptions and reported chat of the Greeks themselves, parents, priests or, less categorically, friends.

It is only a few days short of 100 years since little Bernadette Soubirous had the first of her visions of the Virgin Mary near a stream at Lourdes. A GRAIN OF WHEAT (Hutchinson. 15s.) is an emotional and deeply-felt tribute to the girl who was to be canonised after years of agonising physical suffering, and it has been written by Mrs. Margaret Trouncer. Bernadette's family life, her ecstasies and her professions of faith are treated with reverence, but it is to the young saint's long life in a convent where she died in hideous pain twenty years later, that the author devotes the greater part of her book, to prove that it was as much for that long martyrdom as for her visions that the girl from the Pyrenees was canonised in 1934.

A FAMOUS HOSTELRY IS THREATENED: The Fleur-de-Lis at Canterbury is the subject of appeals to the Minister of Works and the Minister of Local Government and Housing over the plan to pull down the 600-year-old inn to make room for a new shopping block. At one time it was claimed to be the oldest inn in England, and it was a favourite haunt of Charles Dickens and Joseph Conrad. The Committee for the Preservation of Rural Kent is trying hard to prevent its destruction, but their efforts may be in vain, for the ancient property has already been sold for demolitions.

Mr. Maurice Collis brings great gifts of scholarship, style and deeply imaginative understanding to his book on that period in the fourteenth century when, in the Black Prince and in Wat Tyler were epitomised the qualities of the ruling class and the revolutionaries. THE HURLING TIME (Faber. 32s. 6d.) is a magnificent work of research but, far more effective in its impact, an enthralling re-creation of days when chivalry, as Froissart has recorded it, did exist as a vital rule of conduct.

Mr. Alister MacLean's novels are highly-coloured, highly-charged stories of adventure, fairly crammed with incident and written with more regard to excitement than to literary grace. SOUTH BY JAVA HEAD (Collins. 14s.) is the latest and the third that Mr. MacLean has written, his first being the phenomenally successful *H.M.S. Ulysses*. The scene of the present one is the Java Sea area after the fall of Singapore in 1942, and the story is of an ill-assorted group of refugees making their way through shipwreck, air and submarine attack, ordeal in an open boat and Japanese imprisonment to a long-delayed rescue by Australian destroyer. Vivid story-telling and a fast pace.

A WILDERNESS OF MONKEYS (Hutchinson. 12s. 6d.) is a very different affair: a drily humorous, sardonic novel by Mr. Marshall Pugh, about a young man who gets a reporting job on a newspaper with more enterprise than moral tone, and battles with his first assignments which include a repellent story about a pet dog and the odd circumstance of a Highland dancing team composed of G.I.s. Ribald and sometimes funny.

Mr. Francis King writes about modern Greece in THE MAN ON THE ROCK (Longmans. 15s.) but opens his story in squalor in Battersea, with the narrator, a young Greek spiv called Spiro, lying in bed and brooding unpleasantly on his life. Mr. King writes well, very well indeed, and there are passages in his new novel that will remain in one's memory for a long time, but the cumulative effect of the book, although it never reaches the dignity of tragedy, is unhappy.

THE MENAGERIE (Macdonald. 13s. 6d.), by Mrs. Catherine Cookson, is a tale of the industrial north and, specifically, of a Durham colliery town in which the mines dominate the scene as well as the lives of the inhabitants. Mrs. Cookson has a sure hand with her characterisation and a pleasant, dry humour that fits comfortably into the framework of her book.

HOUSE OF LIES (W. H. Allen. 15s.) is by François Mallet-Joris, the young Belgian writer whose powerful talent puts her in the forefront of the newer novelists. As before, the scene is a Flemish town and the characters as distinct and as full of vitality, often malign, as in the work of many of the great nineteenth-century novelists. The translation has been made by Herma Briffault.

There is one English and one American detective story to recommend this week. The first, by Mr. Bernard Farmer, is about police work and is as thorough and well-constructed as a good piece of official investigation. ONCE, AND THEN THE FUNERAL (Heinemann. 13s. 6d.) is, indeed, a good deal more deft than its title. Mr. Patrick Quentin's SUSPICIOUS CIRCUMSTANCES (Gollancz. 12s. 6d.) is set in Beverly Hills, in Las Vegas and in Paris, and is as sophisticated as the background implies. Not too mystifying but full of humour and sprightliness.

Vernon Fane

THE BISMARCK METHOD

Origins of the Franco-Prussian War

Although most historians have made correct conjectures about the origins of the Franco-Prussian War the facts about the Hohenzollern candidature for the Spanish throne were kept secret in Germany until 1945. Then some 300 documents relating to this incident fell into Allied hands. Now their substance is published. BISMARCK AND THE HOHENZOLLERN CANDIDATURE FOR THE SPANISH THRONE (Chatto and Windus. 42s.) has been edited with an introduction by Georges Bonnin and contains all the relevant material from the German diplomatic archives. The fundamental cause of the Franco-Prussian War of 1870 was French fear of the increase in Prussian power. The immediate cause was the candidature for the Spanish throne left vacant by the expulsion of Queen Isabella in 1868. Isabella's son Alfonso was too young to rule, and General Prim, the most powerful figure in Spain, felt that the Bourbons who had reigned since 1700 had been a failure.

In seeking a monarch beyond Spain his choice fell upon Leopold, son of Prince Anton, of the Catholic branch of the Hohenzollern family. Since Prince Anton had recently permitted one son to ascend the throne of Rumania, another son seemed likely to accept this glittering Spanish prize. The first reactions from Leopold, Prince Anton, and old King William, head of the House of Hohenzollern, were apparently more or less negative. It was at this moment in March 1870 that Bismarck took a hand. In these documents we see the most gifted—if not the wisest—of nineteenth-century statesman at work behind the scenes. The "Iron Chancellor" later sought to conceal his share in the struggle which was to leave the Prussianised Reich the strongest military power in the world. His attempts to mislead his contemporaries and posterity failed. If further proof was needed of his true purpose it is to be found in this book.

So great has been the archæological research in the Near and Middle East in recent years that overall reassessments of the past are essential. Leonard Cottrell, well known in broadcasting and television and also for his absorbing books on archæological discoveries, has attempted such a survey. In THE ANVIL OF CIVILISATION (Faber and Faber. 25s.) he outlines the birth, development and inter-relationship of the ancient civilisations of Western Asia and the Mediterranean between 4000 B.C. and 400 B.C. Recent findings and ancient records go hand in hand in making up this fascinating picture. The author's method is to describe the origins of civilisation in the Nile Valley and in Mesopotamia; then he traces the growth of the separate kingdoms through the centuries, Crete and Mycenæ, Babylonia, the Hittites, the Assyrians, the Persians, the small but persuasively influential tribe in Judea, and finally the flower of ancient civilisation in Greece. Mr. Cottrell handles this diverse material with a sure touch.

EGO WITHOUT EGOTISM

I never doubted that autobiography is the most difficult literary form. Few have succeeded in it without discomfort to some of their readers or some sacrifice of the truth, whether through modesty or vanity. Whatever may be the prime quality for success in other forms, absolute honesty is essential for autobiography. And that is a rare quality. In Sir Lawrence Jones' GEORGIAN AFTERNOON (Rupert Hart-Davis. 21s.) it has achieved signal success. Siegfried Sassoon in his admirable autobiographical series avoided some of the difficulties by recourse to fiction forms. It is with Trollope that Sir Lawrence stands for comparison in honesty, and, unlike Trollope, he has done himself no disservice. The inspiration of his earlier volumes is well maintained and most readers will hope that his trilogy may be extended, for there is much to be hoped for in an Elizabethan evening. That honesty was born in him and he has ruefully acknowledged what it has cost him from schooldays onward. But rare honesty is usually built on generosity which covers a multitude of misunderstandings and I should judge that Sir Lawrence has painted as full and as true a portrait of a man's character and his times as we can hope to obtain. He carries on the record of his life, from which vaulting ambition was expunged when he left Eton, to his experiences in the First World War (all too meagre for his brother officers), and as a prisoner of war in Germany, to some years spent in the City, to a brief experience of squiredom in his Norfolk home covering the Second World War, to his efforts to become a playwright and his first essays in literature; and he brings us down to the time when literary success came in full measure after he had shed the burden of possessions and had time to contemplate and interpret the past and the present and the future in modest "rooms-with-a-view" in London. His trilogy is a fine achievement, beautifully written, instinct with integrity and sparkling with humour. He has managed to be generous to his friends without flattery and just and tolerant in his criticisms. His trilogy will live, and only a single anecdote in this book makes me tremble for the truth of history and of lesser matters—a funny story about a court-martial. Each of three men—none of them irresponsible—would swear in court that *he* was the witness of the incident. Only one of them can be right!

John Gore

Nineteen fifty-eight is the hundredth anniversary of the birth of Arnold Dolmetsch, the French musician from Le Mans, whose interest in old music and obsolete instruments led him not only deep into the paths of research but also into the tasks of practical repair. In 1914 Dolmetsch came to London, where he became a familiar figure in the world of music. He started a workshop for the reconstruction of old instruments at Haslemere, in Sussex, and it was there that he and members of his family and helpers organised their annual festivals of chamber music. Now Mabel Dolmetsch has written a fitting tribute to this eccentric genius. In PERSONAL RECOLLECTIONS OF ARNOLD DOLMETSCH (Routledge and Kegan Paul. 30s.) she gives a very vivid portrait of this artist-craftsman who spurned all convention, was indefatigable in research, outspoken in debate, and who rescued from oblivion music that belonged to six centuries.

The constant war against the criminal has to be waged to-day with scientific weapons. Although such weapons can never take the place of a team of skilled police officers, often they are a vital supplement, representing the borderline between police success and failure. In SCIENCE AND THE DETECTION OF CRIME (Hutchinson. 25s.) C. R. M. Cuthbert, formerly Superintendent of the Metropolitan Police Laboratory, New Scotland Yard, reviews the work of the Department of Forensic Science, one of the most important sections in the Criminal Investigation Department. The book is not a scientific textbook. It is intensely readable, even when dealing with abstruse medical and scientific matters. The chapter on Alcohol and Motor Accidents surveys the subject of prosecution on drink charges throughout the world, showing the different tests that are applied in different countries and the varying standards that are agreed in determining intoxication. Apparently in America blood and urine tests have been superseded in some States by the Drunkometer, which gives accurate estimations from the breath. There are chapters on fire and sabotage, forgery of documents, ballistics and drug trafficking. Most valuable photographs accompany the text.

I WALK ON WHEELS (Geoffrey Bles. 15s.), by Elizabeth Sheppard-Jones, is the autobiography of a survivor of the bomb that fell on the Guards Chapel in London in 1944, and a very gallant survivor, too. Now, as result of what the doctors did for her and she has done for herself, she cooks, gardens, writes and entertains her friends. In her electric wheelchair Elizabeth Sheppard-Jones goes about the countryside taking as her example the poet Po Chu—who in A.D. 842, when paralysed, wrote, "All that matters is an active mind, what is the use of feet? By land one can ride in a carrying-chair; by water be rowed in a boat."

THE COLLECTED SHORT STORIES OF SHOLEM ASCH (Macdonald. 16s.) make a rich and varied collection. They were brought together by the author himself shortly before his death in July 1957. Many are published here for the first time in England. R. C. E.

AT THE PONTEVEDRIAN EMBASSY: This scene from the first act of *The Merry Widow* at the Sadler's Wells Theatre, London, shows the guests raising their glasses to the Duke's portrait. Howell Glynne (centre), in the role of Baron Zeta, sings: "The Duke, bless his heart, of our nation!" Lehar's famous operetta is being revived in a new translation by Christopher Hassall. It was first performed at Vienna in 1905, and has since been a favourite wherever it has been played. The director of the current production is Charles Hickman.

AN OPERETTA REVIVED AT SADLER'S WELLS: "THE MERRY WIDOW"

A new translation of *The Merry Widow* by Christopher Hassall has helped to elevate Lehar's successful operetta of fifty years ago to the status of Sadler's Wells repertory opera. The result is a production which is fresh and lively and full of colour and gaiety, and a pleasant departure from the range of recent productions at the Wells. The brilliant and beautiful score of Franz Lehar transcends the shortcomings of the Ruritanian setting and nonsensical plot—standard appurtenances of many an Edwardian musical comedy. It is very rarely that *The Merry Widow* has been performed in England with such excellent voices, and the Sadler's Wells version does a great deal to show how much more of a classic the piece is than most contemporary works of its kind. June Bronhill plays the Widow and Thomas Round the Count, with Howell Glynne as the Baron. Marion Lowe is Valencienne, the flirtatious wife of the Baron. In the last act she leads the girls from Maxime's in a vigorous can-can. The director is Charles Hickman, and Alexander Gibson conducts the orchestra.

FIRST-ACT QUARTET: Left to right in this scene from *The Merry Widow* are Count Danilo, sung by Thomas Round; the lady of the title, played by June Bronhill, Valencienne (Marion Lowe), and Camille de Rosillon (William McAlpine). The score of *The Merry Widow* is one of Lehar's best.

THE CAN-CAN GIRLS: "The grisettes of Paris greet you, And we're very pleased to meet you," they sing in the last act of *The Merry Widow* at the Sadler's Wells Theatre. In the foreground is Marion Lowe as Valencienne, who introduces the girls from Maxime's restaurant. Shortly afterwards they take part in a spirited can-can with the dancers.

A NEW BRIDGE FOR THE CRESCENT CITY : At New Orleans, Louisiana, this great bridge across the Mississippi is nearly finished. It is 12,119 ft. long, including 9,100 ft. of approaches. It is the longest bridge of the cantilever type in the United States, and the third longest in the world. Until now ferries have been the only link between the downtown section of the city and the populous Algiers district on the opposite bank. At Canal Street, the main business street of New Orleans, the Mississippi is half a mile wide. The city, which has a population of 500,000, is the largest in the State of Louisiana, and after Liverpool the largest cotton port in the world. Much of the land on which New Orleans is built is marshy and below the level of the river ; consequently, levees have been built along the crescent-shaped banks.

ELEVATED TRANSPORT

A Bridge Across the Mississippi; a Monorail Link to London Airport?

THE PROTOTYPE OF THE MONORAIL : At Cologne, in West Germany, a model monorail speeds along its track during early tests which led to the building of the full-scale section. *On left*—Here a train enters the special station built for its public test.

The Government is now seriously considering a plan for a monorail link between Central London and London Airport. Mr. Nugent, Parliamentary Secretary to the Minister of Transport, has recently returned from Germany, having inspected the Alweg monorail at Cologne, and was very favourably impressed. Advantages of the system are that it does not require land acquisition, since it can run over existing roads and railways ; it is very rapid, a speed of 75-80 m.p.h. would be quite feasible ; the cost is low, and would be about £500,000 per mile. The noise from a monorail train is no higher than that of a heavy lorry. Sir Alfred Bossom, M.P., has been appointed chairman of a new company, Air-Rail Ltd., whose aim is to develop the service to London Airport. A plan has been submitted to the Minister for a service from Victoria, which would run over the existing Southern Region line through Clapham Junction, Putney, Richmond and Twickenham to Feltham. Here it would cut across country until it reached the Airport perimeter. The cars would be able to run on the road as well as the track and could be driven right up to waiting aircraft. If official permission is given to the scheme, the line will be ready by 1961. The Minister, Mr. Watkinson, is considering the report of his technicians who have conducted an examination into the safety of the monorail at Cologne.

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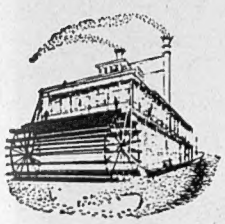

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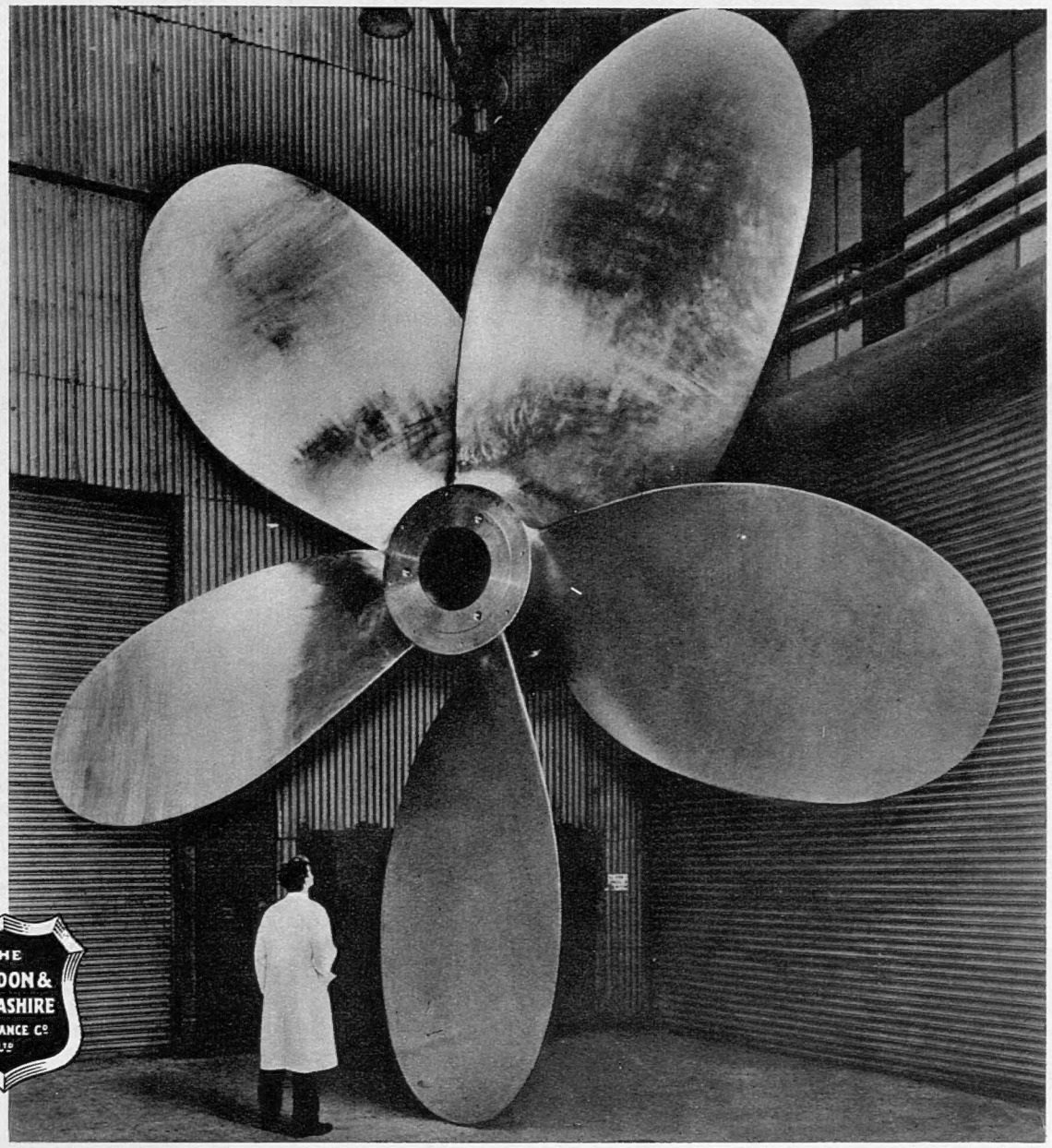

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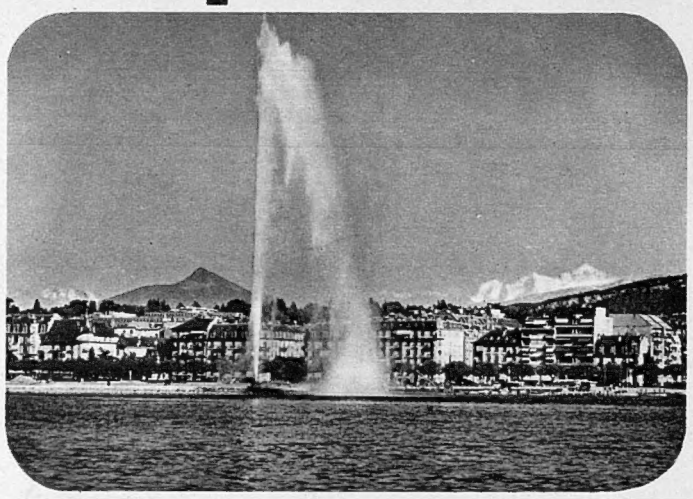

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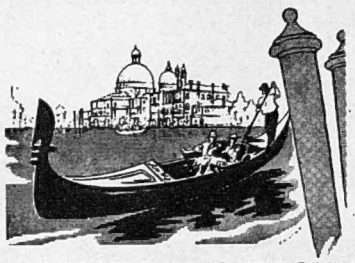

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Celebrities Attend the Opening of "Le Rendez-vous Manqué"

AN INTERVAL DISCUSSION: Serge Lifar, of the Paris Opera Ballet, discusses the first act of the ballet *Le Rendez-vous Manque*, by Françoise Sagan, with the famous French popular singer, Charles Trenet. The ballet was performed first at Monte Carlo. It has been lengthened for its Paris performance and this month will appear in London at the Dominion Theatre as *Broken Date*. The dancers are Toni Lander, Vladimir Skouratoff and Noelle Adam. The work had a mixed reception from the critics in Paris.

JEANMAIRE INTERVIEWED: A radio reporter asks the ballerina what her opinion of the ballet was. "Quite enjoyable," was the reply. *On left*—Françoise Sagan leaves back-stage to take her seat for the opening in the company of Bernard Buffet, the brilliant young French artist. M. Buffet's decor for *Le Rendez-vous Manque* was highly praised by the critics.

BETWEEN THE ACTS: M. and Madame François Poncet (centre) are seen in the foyer discussing the first part of *Le Rendez-vous Manque* with friends. M. Poncet is the former French Ambassador to Germany. Other members of the distinguished audience present at the first night included Brigitte Bardot, the actress; Ludmilla Tcherina, the ballerina; François Mauriac, the author; Georges Carpentier, the former boxer; Yves St. Laurent, Dior's successor; and Mr. and Mrs. Mike Todd.

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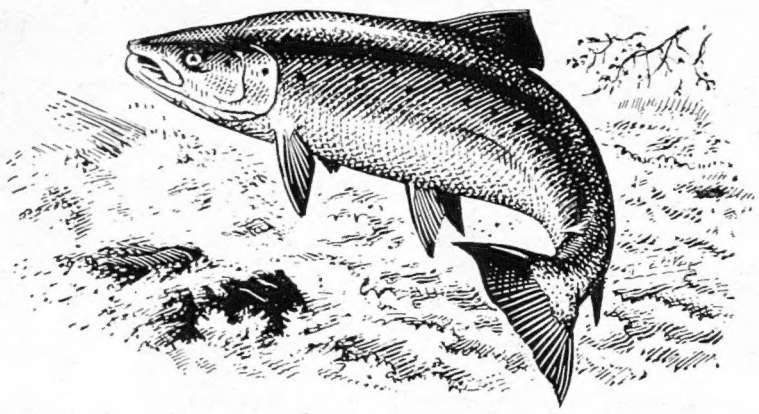

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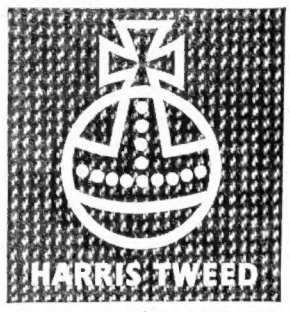

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